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GLASGOW'S EXPERIENCE WITH MUNICIPAL OWNERSHIP AND OPERATION.

WATER, GAS, ELECTRICITY AND STREET RAILWAYS.

By Robert Crawford, LL. D.,

Ex-Councillor, Ex-Burgh Magistrate, Ex-Chairman of the Committee on Health of Glasgow, Member for Ten Years of Committee on Street Railways, Justice of the Peace, and Deputy Lieutenant of the County of the City of Glasgow.

The corporation of Glasgow is the representative body to which the citizens entrust its municipal government. Two separate elective bodies are appointed having charge respectively of education and poor law administration, but the Town Council (which is the corporation) has the responsibility of practically all other departments of the city government.

Glasgow has for many years taken a wide and comprehensive view of the work which its governing body should carry out for its inhabitants, and thus we find that the scope of its municipal operations is probably broader and more extensive than what prevails in any other city in the United Kingdom. Not only does the corporation of Glasgow undertake all the duties which naturally and necessarily have to be discharged by every city government, but it handles in addition large enterprises of a commercial character which were at one time generally, and still are quite commonly, entrusted to private enterprise and control.

The work carried on by the corporation falls thus into two main divisions or groups. The first group includes all those services for which no charge is directly imposed for the services rendered, the cost being defrayed out of the rates. These include police and fire protection, roads and bridges, lighting, cleansing, public health and sanitation, infectious disease hospitals, libraries, art galleries, museums, parks, playgrounds, botanic gardens, etc. These and many other minor services are at the call and use equally of every citizen,

without limit and without distinction of class, the cost thereof being met by an assessment based on the rental or annual value of all occupied buildings or lands within the municipal limits.

The second main division of municipal administration consists of those services of a more commercial character which derive no aid from the rates, and for which every person, citizen or stranger, pays only, if and when, he or she makes use of them. Here again the number of services is legion, and comprises among other departments markets, abattoirs, baths and wash-houses, bowling-greens and golf courses, lodging-houses and houses for the laboring classes, etc. Such conveniences are publicly provided and controlled for many and various reasons, but primarily for public health and amenity, and also because the citizens desire that this should be so. None of these are monopolies in any strict sense, but they are of such manifest public convenience and advantage that their public ownership and management is generally approved. The most important enterprises under this head, however, are those which form the subject matter of this article, viz.:

Gas, Water, Electricity and Street Railways.

These four great departments, with their army of servants and officials, their enormous capital cost, and their princely revenues have all been made or acquired with public money, and are carried on by the corporation profitably and successfully without friction, and to the manifest satisfaction of the people, and the advantage and prosperity of the city.

There is probably no citizen of Glasgow who could be found so foolish or so bold, as to propose to-day, that any of these four great natural communal services should be divorced from public control and handed over again to private ownership. No doubt very large sums in cash could be obtained for each of these civic monopolies, and very stringent conditions could be imposed on the concessionaries for the public protection, but no sum of money however extravagant, and no conditions however apparently advantageous, would now be sufficient to tempt the people of Glasgow to part with the privilege of possessing and managing what have now become municipal necessities.

It is true that the organization of each of these great departments is admirable, that they are all financially very successful, that they are all highly flexible and sensitive to the public wants, and

minister in a marked degree to the public well-being, health and comfort. All this is expected in Glasgow from every department of the municipal service, and as a rule is rendered. But, while this is true, there is something more. There is in Glasgow to-day a large infusion among citizens of every class of the civic spirit. There is civic pride in civic enterprises and institutions. These enterprises are the property of the people, their very own, to be appreciated, cherished and encouraged as well as used. This attachment to and loyal support of things municipal was strikingly shown when, eleven years ago, the street tramways were first operated under city control. The service under the private company had fallen out of public favor, but on the very first day that the corporation cars were run, the people began traveling by the municipal street cars in great numbers, as it almost seemed for the mere joy and pleasure of using their own property. The truth is that the great magnetic power of public possession has, during the last twenty-five years, gone far to develop among the citizens of Glasgow, a feeling of loyalty, responsibility, order and a permanent living interest in civic affairs and business, which is entirely admirable and of great value to all aspects of its public life.

It was not ever thus. As I will show in the short history which follows of each of the four great branches of public service now under consideration, they were all held at one time under separate private ownerships. It is indeed only within the last forty or fifty years that the conviction has begun to grow in the minds of Scotchmen that the community as such should and could conduct its own proper public business, and supply its own communal needs through the agency and under the management of its own public representatives, without the intervention or exploitation of private capital. In each of these enterprises, the private owners were only eliminated after long resistance, at great public cost, and amid much doubt and controversy as to the wisdom or unwisdom of the proposed public ownership. In no case have the anticipations of the overtimid been justified. Good public management, wise, honest and able officials, along with public confidence and support, have led up to complete success and enormous growth and development in every branch. It may be worth while to look briefly for the reasons and causes of this very satisfactory state of things in Glasgow, and generally throughout our Scottish cities and towns.

And first, as to the suffrage: The elective franchise is entirely democratic; every person, male or female, who pays the rates for poor relief is entitled to vote in the election of the council members. The municipal constituency numbers 140,000 persons all entitled to vote, out of a population of 800,000. The city is divided into twenty-five divisions or wards, each ward being entitled to return three council members. One member retires from each ward every year, so that there is maintained a constant interest and movement among the electors who can indicate their views and feelings by re-electing or changing one-third of their representatives annually without violently upsetting the working of the municipal machinery by wholesale changes. Candidates are generally nominated for election or re-election at the annual public meeting of the ward electors, and any person who is a rate-payer in any ward of the city may be a candidate for any division. Contests are frequent,—one-third to one-half of the wards being contested annually. National politics do not enter into the elections to any visible or serious extent, the choice of a councillor being usually dependent on character, experience and business ability, qualified by his views on temperance, finance, labor questions, municipal employment, salaries, etc.

Bribery and corruption of voters is unknown, and the expenses which may be incurred by candidates in carrying on their election is regulated by statute in proportion to the population; seldom exceeding in any ward one hundred pounds. The representatives are unpaid and no councillor can hold any office of profit, or take contracts, or supply goods to the corporation while he holds his office. Councillors are chosen from all ranks, occupations and professions, and are of very varying degrees of wealth and social standing,—merchant princes, large manufacturers, doctors, lawyers, shop-keepers and small tradesmen are accepted as of equal standing and importance in their position as town councillors, and all may rise to posts of importance as chairmen of committees, burgh magistrates, and other prominent offices, not in any way by virtue of their wealth, but solely by the evidence they give of usefulness, talent and public spirit. There is no log-rolling, very little of clique or party feeling and the council as a body is conspicuously honest and free from all taint or suspicion of direct or improper personal interest of any kind. There is of course plenty of public talk and debate on all important points of public interest, but the voting is generally directed by a conscientious desire on the

part of individual members to settle all business in the way best calculated to promote the public interest. It follows from the character and constitution of the council that it forms an excellent body from which the members may be drawn who are to do the very important work of the various great standing committees. The committees who carry on the actual work of such enterprises as water, gas, electricity and tramways, usually consist each of twenty-five members, one being chosen from the representatives of each of the twenty-five city wards. A chairman and vice-chairman are appointed by the council for each committee, and the committees themselves are chosen or re-appointed annually. Meetings of committees is approved by the council. The general public meetings of details of the work done at these meetings are printed in detail in the form of minutes and presented to the whole council for review and discussion. As a general rule the recommendation of these committees is approved by the council. The general public meetings of the council are very fully reported in the press, and as this body is always highly sensitive to public opinion, and their proceedings regarded with great interest by the citizens, there is every guarantee that no abuses or blunders can occur in committee without coming into the full blaze of public criticism and comment.

This, then, is the body of seventy-five honest, intelligent and generally capable men who on behalf of their fellow citizens, undertake without fee or reward, the great responsibility and labor of carrying on the complex and elaborate machinery of municipal government in Glasgow. That they accomplish this with signal success is known to the world. But there is no secret concealed beneath this great success,—no charm or magic in the method. There is nothing in the system which would necessarily and of itself give guarantee of success. The system is undoubtedly good, probably as good as could be devised. The secret of success, however, lies deeper than the mere machinery and must be sought for mainly in the honesty, uprightness, capacity, self-sacrifice and patriotism of the men chosen by an intelligent community and entrusted with this great communal duty.

The chairman of the council is the Lord Provost of the city, who does not receive salary or money allowance of any kind. He holds the office for three years, and is during that period not only the civic but also the social head of the city. He is appointed by the

council itself, as a rule, on account of his long service, ability and high character.

During the period of his office he presides at the public meetings of the city council, and is in constant touch with the chief officials, chairmen of committees, etc., and knows all the main movements of municipal business. Outside of the council he is the leading exponent of municipal policy, ideas and ideals,—very much as the Prime Minister of Great Britain is the recognized mouth-piece of the government. The Lord Provost, however, drops national politics absolutely during his three years of office. He may be, and often is, a keen politician, but just as there are no national politics recognized in carrying on municipal business, so the first citizen, on his election to his office, strips himself entirely of all political color so long as he holds the official status of head of the municipality.

The administrative body which exercises control over Glasgow's municipal industries is thus by its character, composition and experience admirably adapted to carry on successfully these great civic commercial undertakings on sound commercial and business lines. The absence of the political elements and of direct self-interest, the free public criticism, the method of election and the existence of the civic spirit, impart to such a body just the right tone, temper and capacity for sound, sane and efficient administration of public affairs. The staff of paid municipal officers and employees are selected on similar lines. There are no gifts of lucrative offices or posts to confer on political friends or supporters, experience, merit and ability alone being recognized. As a rule, the official heads of the great departments are invested with full powers of discipline and control over the various staffs of public employees.

The committees on gas, water, electricity and street cars deal, as a rule, only with important matters of policy and organization, leaving to the chief manager of the department absolute discretion and power in the matter of employment or dismissal of the personnel of municipal workers. His aim and object being efficiency, he permits no other consideration whatever to influence him in carrying on his work as responsible departmental chief. The municipal employees number over 15,000, and a considerable proportion have votes. These employees from time to time have made efforts publicly to influence the election of councillors who had expressed themselves as

specially in sympathy with their interests as wage-earners, but up to the present this has not assumed the proportions of a very serious danger, although it may become so in time, and may have to be dealt with for the protection of municipal independence.

The wages and general conditions of the men employed by the municipality are exceedingly good, better indeed than those prevailing in private employment, but not extravagantly so. The very best class of men are anxious to enter into municipal employment on account of its permanence and other advantages, and the supply obtainable is practically unlimited. Civility, courtesy, smartness and reliability in their contact with the public are required from all such public servants, and, as a rule, are practiced. And thus it comes that the enterprises of which I am writing are not only conducted economically and efficiently, but in addition are most satisfying to the citizens, who would never consent to part with them as municipal possessions.

A very important question of principle arises in connection with the finance side of the group of municipal services now under consideration. Quite a number of municipalities who carry on similar enterprises successfully take from their surplus funds annually considerable sums for relief of the municipal rates. Glasgow has constantly declined to follow this example. She has always acted on the principle that each public service should be water-tight, asking nothing, and giving nothing financially to any other department of the public service. All profits are therefore used to lower the charges to the public, or to increase the facilities for use of the various services. This self-denying policy seems perfectly sound and eminently equitable. To each citizen there comes in this way his due proportion of advantage according to the measure of his use of the public services or utilities. As a result of this policy Glasgow claims that not only has she the best, but very much the cheapest supply to the users of water, gas, electricity and street railroads in Great Britain.

If further justification be sought for the public possession and operation of these undertakings, it is to be found in the nature of the services themselves in relation to the public convenience. In the first place, these enterprises are in the nature of civic monopolies,—competition in the supply of water, gas, electricity and tramways, all requiring as their essential condition, the use of the public streets

and highways, and it could in no case be of advantage that rivalry should exist. The streets being public property, and set aside for public uses, cannot be given over to the tender mercies of competing undertakings to deal with at their own will, and in modern days with its enormous increase and development of such public services there seems no reasonable course possible other than the entire public possession and control of every enterprise which requires the use of the streets of a city for its operation.

I have set down at some length the general reasons and ideas prevailing in Glasgow as to public ownership, and some of the reasons and conditions which have led to its success, but it must be further added that the bold and progressive example set by Glasgow has had the result over the whole United Kingdom of greatly stimulating municipal enterprise, and of generally developing municipal ownership. If Glasgow, through laxity or bad management of any other cause, had unfortunately made a failure in any of these services, her failure would have acted as a check on the municipal progress of the whole country. Happily, nothing of this kind has occurred. The history of each of these and of other departments may be scanned, without finding the record of any important failure in management or serious blunder in policy. Glasgow's success has in this way been a valuable contribution to the progress of communal government in the United Kingdom and even beyond it, and a constant stream of students of municipal institutions and civic control sets towards the city of St. Mungo. These students come from every city and every country and from no country in such numbers as the United States. All who are interested in these matters are cordially welcomed, and every facility afforded them to learn all about everything. Glasgow is cosmopolitan enough to desire that, if she has any knowledge or experience of any kind that is likely to be useful to other communities, all are welcome to take advantage of it.

The following are the chief points of interest (avoiding details and figures as much as possible) relating to the several departments under review.

Glasgow's Water Supply.

In 1855 the Glasgow Corporation obtained powers from Parliament to acquire by purchase the works of two private companies

which were then supplying the city of Glasgow with water, and to construct new works for bringing a plentiful supply of pure water to the city and surrounding districts from Loch Katrine and other lochs in the Perthshire Highlands, and distant from Glasgow over thirty-five miles. The scheme had been under discussion for ten years, and was bitterly opposed by the two private companies, costing the city in parliamentary expenses alone over £26,000 sterling. The supply up to that time had been meagre in quantity, and most execrable in quality, being mainly drawn from the river Clyde, which was fast becoming a poisonous and fœtid stream. In March, 1860, the city was able to turn off the river water as a source of domestic supply forever.

The citizens of that date were not all models of enlightenment, and the bold and novel proposal to bring a supply of water from a series of remote highland lakes with many intervening mountains, was subjected to fierce and long continued opposition by a portion of the rate-payers. Every conceivable kind of calamity was predicted at the ward meetings and in the press, and the most absurd criticism was indulged in, but common sense at length prevailed, and the vast task of tunnelling the mountains taken energetically in hand. The aqueducts have since been duplicated, and the storage capacity now possessed by Glasgow is sufficient to supply the city with clear crystalline cold water to the extent of one hundred million gallons per day. The water is remarkably uniform in quality, temperature and color,—summer sun and winter storm affect it but little,—it is absolutely free from pollution, and needs no filtration. There is certainly not another city in the kingdom,—indeed it is doubtful if anywhere on the face of the earth there is a large population so advantageously situated as the people of Glasgow for water supply in respect of abundance, purity and cheapness. It has been of incalculable value in fostering the arts and industries of the city. Its effect on the tables of mortality was something magical, especially in respect of diarrhœal affections and diseases of the young. The whole effect of this great and bold municipal venture in promoting the health and welfare of the people may never be reckoned up, while its blessings and benefits of many multifarious kinds would fill a volume.

The domestic water rate charged to consumers is only 5d. per pound on rental of dwelling houses, and all other rates proportion-

ately low,—not much more than one shilling per head of the population supplied,—and this for an absolutely unlimited individual supply. The saving of cost to the citizens under their own ownership of water supply (leaving out all questions of quality and quantity) as compared with the cost under private ownership, has been calculated at not less than a million and a quarter pounds sterling. Mr. Bateman, the original engineer of the scheme, made a calculation that the saving in the use of domestic articles by reason of the softness of the water (including soap, tea, coffee, etc.) would more than pay the whole domestic water rate.

Charitable institutions are all supplied free of charge, as are also the public baths and wash-houses belonging to the corporation. Nor does the water department charge the other branches for water used for cleansing purposes, watering streets, flushing sewers, extinguishing fires, etc., thus introducing a freedom and simplicity most beneficial to the public interest. The cost of the whole undertaking amounts to over four million pounds, and the population supplied, inside and outside the city limits, numbers over 1,100,000, the consumption per head being equal to fifty-six and a half gallons per day.

Municipal ownership and municipal management have a splendid and enduring monument in the Glasgow Corporation water works.

Glasgow Corporation Gas Supply.

Gas was first introduced into Glasgow in 1818. It was not until 1869 that the citizens made up their minds finally that the making and distribution of gas was a public service that ought not to be carried on under private ownership, but rather that it was essentially suited to municipal ownership and management. Until 1869 two gas companies had competed for the business, and had the right to lay their mains and distribute pipes throughout the city. Grumbling and dissatisfaction were general and perpetual. The price was said to be too high, quality bad, service faulty in many respects. After many years of friction and much negotiation, a bill was passed by Parliament (1868-69) authorizing the purchase by the city of the existing companies. The shareholders received perpetual corporation annuities for their entire capital, at the rate of 9 per cent. per annum in the case of one company, and of 6¾ per cent. in the other.

The works so acquired were in a very bad condition of repair, as was shown by the fact that one of the companies had been losing by leakage and unaccounted-for gas as much as 23 per cent. of the total make, instead of about 10 per cent. which is now the Glasgow rate. In short, the works and the mains and pipes had to be practically renewed at the public expense. Four large and modern works, fitted with all the latest machinery and methods for gas production now supply an area of sixteen miles long by twelve in breadth. The gas sold in 1870 amounted to 1,295,866,000 cubic feet,—the price was four shillings and seven pence per thousand feet, and the gross revenue was £235,701.

In 1904-05, the price for domestic consumption was two shillings and a penny per thousand feet,—the gross revenue totaled £800,177, and the amount of gas sold reached the enormous total of close on six thousand millions of cubic feet, and the quantity of coals carbonized reached to seven hundred thousand tons. The entire capital cost to the corporation of their gas undertaking is close on four millions of pounds sterling, from which depreciation has been written off exceeding one and a quarter million pounds sterling. Gas stoves and cooking ranges are hired or sold, and more than 100,000 of these have been brought into use through the organization of the corporation. From every possible aspect the management and control of the gas supply of Glasgow by the city government must be pronounced an unqualified success. The price is low, the supply and quality good, the public convenience fully met in every way, and there is no complaint on the part of any section of the public.

Glasgow Electricity Department.

The electric lighting order, conferring on the corporation the sole privilege of publicly supplying electricity for light and power was not applied for until 1890. A small company was then in existence for this purpose, but having no right to use the streets for cables, their business was very limited. This company was acquired by the corporation at the price of £13,000. No one then had or could have any idea of the magnitude to which the undertaking would so rapidly attain. In the year ending May 31, 1905, the gross revenue already amounted to nearly two hundred thousand pounds, and there is every evidence that this will increase by leaps and

bounds for many years to come,—not alone from the increased use of electricity for light, but even more markedly for power purposes. Many users of power are gradually abandoning the use of steam entirely in favor of electric driving. The capital expenditure is now one million and a quarter pounds sterling, and large additions to the various stations are now being made.

The management is in the hands of a committee of twenty-five members of the corporation, and there seems no reason to think that their work could be better done in any other way. The enterprise is commercially sound, and the supply gives every satisfaction to the citizens alike from its convenience and moderate cost. The keeping of this service under public control along with gas and water is manifestly a great public convenience in so far as the opening up of streets is concerned inasmuch as it permits of the official heads of the respective departments arranging together to reduce this to its lowest possible limit.

Glasgow Street Railways or Tram Cars.

The first tramway in Glasgow was constructed by the corporation and opened on August 19, 1872. The service was by animal traction, and was operated by the Glasgow Tramway and Omnibus Company, to whom the system was leased for twenty-two years. On July 1, 1894, the corporation commenced to operate the tramways as a municipal undertaking,—the company's lease expiring at twelve o'clock on the night previous and a full and complete corporation service was running six hours later. The length of line (single track) leased to the company was sixty miles. The lines now made and authorized to be made come to close on two hundred miles of single track.

Of the total length of tramways made and authorized 62 per cent. is within and 38 per cent. without the municipal boundaries. The lines outside the city project into the outside burghs of Clydebank, Partick, Renfrew, Paisley, Pollokshaws and Rutherglen, and into the counties of Lanark and Renfrew, to Bishopbriggs, Shettleston, Tollcross, Cambuslang and Cathcart. These extensions into the outlying districts have all been made at the request of the communities concerned, and the corporation of Glasgow has always acted with the fullest co-operation and support of all the burgh and county authorities.

The city of Glasgow, with most of the places above mentioned, forms really one community. The corporation, in making arrangements for extensions of the tramway system, has always recognized this fact, and has, consequently, regarded the whole tramway system as one, giving the outside communities exactly the same tramway facilities and at the same fares as are enjoyed by the citizens of Glasgow.

Prior to 1894 the Tramways Committee considered the question of mechanical traction, and reported on various systems. The line, however, being in the hands of the lessees up to the last day of the lease, it was impossible to start with any other system than horse traction. In 1895 a committee was again appointed to go fully into the question of electric traction. This committee finally reported in favor of the overhead system or trolley. The Springburn line, extending to two and a half miles of route, was equipped as a demonstration of the system, and the line opened on October 13, 1898. So satisfactory in every way was this demonstration during the first two months' working that, on December 28, 1898, it was decided to convert the whole of the tramways to the overhead system. The equipment of the whole of the routes was completed by the summer of 1901, and the last horse cars had disappeared by the end of April, 1902.

The power station is situated at Pinkston, on the Forth and Clyde Canal, and is one of the largest traction stations in Europe. It is bounded on one side by the canal, and is connected with both the Caledonian and North British Railways. The building is 244 feet in length by 200 feet in breadth, and the height of the walls is 88 feet. The boiler room, which forms the east bay, with a span of 84 feet, contains sixteen Babcock and Wilcox boilers, each capable of producing 20,000 pounds of steam per hour, at a working pressure of 160 pounds per square inch. The engine room, which forms the centre bay, contains four main engines, designed to work at 4,000 I. H. P., but which are capable of developing a maximum of 5,000. Two of the engines are of American make, and two of British make. Each engine is directly coupled to a three-phase generator, designed for an output of 2,500 kilowatts at a pressure of 5,000 volts.

There are also two auxiliary engines of 800 to 1,000 horsepower, each coupled to a direct current dynamo. In the west bay are situated all the auxiliary plant.

From the feeder panels of the main switchboard in the power station four three-score cables are led to each of five substations, which are situated at Coplawhill and Kinning Park, on the south side of the river; Partick, in the west; Whitevale, in the east, and Dalhousie, near the centre of the city. The units in each of the substations are all of the same size, each static transformer being 200 kilowatts, and each rotary convertor 500 kilowatts.

When the corporation took over the lines in 1894 almost the whole of the system had been previously relaid with steel girder rails, weighing 79 pounds per yard. The corporation introduced a heavier section, weighing 89 pounds, and since 1898 all the rails used, both in renewals and extensions, have been 100 pounds per yard, and in 60 feet lengths. The rails are laid to a gauge of 4 feet 7¾ inches, on a bed of Portland cement concrete 6 inches in depth, and extending 18 inches beyond the outer rails. The feeder system of cables is laid in ducts, which are placed in the centre of the street.

Throughout the whole system the trolley wires are supported in the centre of the track by span wires. In Great Western Road, from Kelvinbridge to Hyndland Road, the centre pole construction has been adopted. There are also a few centre poles on the Springburn route, and also on Glasgow bridge. Wherever possible the span wires have been attached to the buildings on either side of the street by means of rosettes.

The workshops of the department are situated at Coplawhill, on the south side of the Clyde, about a mile from the centre of the city. These cover an area of 28,000 square yards. The ground in this locality has been in the possession of the corporation for several centuries, and this portion was taken over by the tramways department from the Common Good at a valuation. The workshops consist of offices, stores, smiths' shop, sawmill, car-building shop, iron-working shop, car-repairing shop, paint shop, etc. All these departments are fully equipped with the most approved machine tools for making and repairing cars, etc. Nearly all the electric cars have been built in these workshops by the staff of the department.

There are in all nine depots for the accommodation of the electric cars. At each depot there is a roomy office for the accommodation of the traffic staff. The depot foreman has a store, workshop etc., and every convenience for the cleaning and inspection of the cars. At all the depots there are kitchens, bath-rooms, etc. There is

also, at several depots, a well-equipped gymnasium for the use of the men. The department has now 683 electric cars, and arrangements are being made for building an additional number to cope with the increasing traffic.

When the corporation started to operate the system in 1894 the fares were considerably reduced, and halfpenny fares instituted for half-mile stages. From time to time further reductions have been given, and the average distances which can be travelled at the various fares are now as under:

Fare.	Distance.
½d.	.58 miles
1d.	2.30 "
1½d.	3.48 "
2d.	4.64 "
2½d.	5.80 "
3d.	6.89 "
3½d.	8.15 "
4d.	9.09 "

During the year ending June 30, 1894, the number of passengers carried by the lessees was 54,000,000. During the year ending May 31, 1905, the number carried by the corporation cars exceeded 195,000,000.

TABLE SHOWING GROWTH AND PROGRESS OF THE GLASGOW STREET RAILWAYS UNDER MUNICIPAL CONTROL AND OPERATION.

Period (to 31st May).	Length of track (single).	Average cars 16-hour day.	Car mileage.	Passengers carried.	Receipts.	Average receipts per car mile.
1894–5 (11 months)	64	170.97	5,192,031	57,104,647	£222,121. 11. 0	10.26
1895–6	65	227.66	6,932,650	86,462,594	328,827. 8. 8	11.38
1896–7	73	268.20	8,127,111	98,966,658	365,761. 3.10	10.80
1897–8	73	280.96	8,483,012	106,344,437	389,216. 9. 6	11.01
1898–9	81½	305.85	9,071,640	118,775,668	433,128. 0. 6	11.46
1899–1900	83½	316.96	9,657,429	127,628,484	464,786. 15. 2	11.55
1900–1	88	322.02	9,847,545	132,557,724	484,872. 17. 10	11.82
1901–2	103½	365.41	12,615,021	163,678,190	612,826. 2. 4	11.66
1902–3	130	399.58	14,008,750	177,179,549	653,199. 18. 2	11.19

SUMMARY OF INFORMATION REGARDING ONE YEAR'S WORKING TO MAY 31, 1905.

Total borrowing powers	£2,700,000 .0.0
Borrowing powers exercised	2,232,358. 8.9
Unexhausted borrowing powers	467,641.11.3
Capital expenditure	2,763,381.12.3
Single miles of line open for traffic (average during year)	144¼

Mileage of Track Open for Traffic as at May 31, 1905.

	Single.			Double.			Total.		
	Miles.	Fur.	Yds.	Miles.	Fur.	Yds.	Miles.	Fur.	Yds.
Owned		1	86	68	2	146	68	4	12
Leased				5	2	163	5	2	163
Total		1	86	73	5	89	73	6	175

Population served by tramways (city and suburbs)	over 1,000,000
Traffic revenue	£756,480. 8.7
Total revenue	764,790.16.8
Working expenses	387,167. 9.2
Interest on capital	49,906. 4.7
Sinking fund	46,919. 8.9
Net balance	93,298.13.6

Disposal of Net Balance.

Special depreciation	£68,500. 0.0	
General reserve fund	24,798.13.6	
		£93,298.13.6

Car miles	17,943,595
Car hours	2,619,822
Passengers carried	195,767,519
Total number of units used for traction and car lighting	20,268,407
Number of units used per car mile for traction and car lighting	1.13
Average number of cars in use for sixteen hours day	448.59
Percentage of working expenses to receipts	50.42
Average traffic revenue per car mile	10.12d.
Average traffic revenue per car hour	5s. 9.30d.
Average traffic revenue per mile of single track	£5,253
Average total revenue per car mile	10.23d.
Average car miles per day per car	109.59
Average speed per hour (miles)	7.4
Average car hours per day	7,177.59
Average working expenses per car mile (excluding power works cost)	4.84d.
Average working expenses per car mile (including power works cost)	5.18d.

Average working expenses per car mile (including power works cost and amount expended on permanent way renewals)	5.36d.
Average working expenses per car mile (including total power cost and amount expended on permanent way renewals)	6.36d.
Average fare paid per passenger	.93d.
Average number of passengers per car mile	10.91
Average journeys per head of population per annum	195.77
Number of cars in stock	683
Total amount of sinking fund	£449,274.15.2
Amount of sinking fund applied in reduction of debt	£449,274.15.2
Amount of general reserve fund	£32,589.15.6
Amount of depreciation and permanent way renewals fund	£777,636.18.8

Percentage of Expenses to Receipts.

Working expenses	50.42		
Corporation of Govan	.66		
Paisley District Tramways Co.	.12		
Interest on capital	6.50		
Sinking fund	6.11		
Income tax	.71		
Parliamentary expenses	.11		
Annual payment to Common Good	3.27		
Depreciation and permanent way renewals fund	19.97		
		87.87	
Net balance		12.13	
			100.00

The staff of the tramways department now numbers 3,500. Of this number 3,020 are members of the Departmental Friendly Society. The weekly contribution per member is 6d., to which the tramways committee add 4d., including 1d., which is placed to the credit of a superannuation fund. The weekly aliment to members who are off work through illness is 15s. for the first six months, and 10s. for the second six months. The amount at the credit of the Superannuation Fund is now £9,591.13.6d. This fund comes into operation in 1911, and is for the benefit of members who, after long corporation service, have become unable for work.

The Friendly and Superannuation Funds have been of great value in making the employees content with their conditions and anxious to remain permanently in municipal employment. It has also had the effect, along with a liberal scale of wages, in keeping off the paid agitator, so that no strikes or threats of strikes have taken place among the men. The wages and general conditions are distinctly better than those paid by private employers for a similar kind

of service, and the supply of suitable men seeking corporation employment is always far in excess of the demand.

The writer has set down the facts relating to Glasgow's street railways at some considerable length and detail, because of the great importance of this form of municipal enterprise, and because of the prominence recently given in America to its municipal ownership of this service. The decision of the corporation to undertake this comparatively new branch of public management was not arrived at without much public doubt and controversy. The success has been so immediate and so great, and the convenience and happiness of the population have been so marvelously enhanced, that all doubt and questioning is now at rest. From the very first morning on which the corporation cars ran on the streets, a loyal and hearty approval was given to the service by the whole body of the people. Even as horse cars the corporation service was an enormous improvement on that of the company. The conversion of the system to electric trolley was accomplished without a hitch, and without a blunder. Fares are exceedingly low, as the tables show, the service swift, bright, clean and frequent. No advertising on the cars is permitted. The conductors, smartly dressed in uniform, are civil and obliging, and satisfaction is universal.

The success of Glasgow's street tramways has had, as already indicated, a vast influence on the history of British tramways. When Glasgow took heart of grace and determined against great opposition that the street monopoly of rails and cars should thenceforth be her own civic property and be controlled by the Town Council, the other great cities of the kingdom stood still for a time and watched this great venture and experiment. Had Glasgow blundered or failed even in a degree, it is quite certain that to-day most of the important cities would have re-leased their street railroads to private companies, and faith in the capacity of public elective bodies to handle such concerns would have been rudely shattered. But the very reverse has been the case. Not only is it true that the striking example of Glasgow has led to the general taking over of the management of their tramway system by all important cities and towns in Britain to the vast advantage of their citizens, but it is equally true that the civic spirit and confidence in communal management of public utilities and services generally has been greatly stimulated and strengthened.

The committee of twenty-five representatives, to whom the Town Council have entrusted all the complex details of an organization so vast as this, has never been composed, nor even contained one member who could be called an expert in street railways. The members have gradually been changed from year to year in the ebb and flow of representation, and are simply ordinary shrewd men of business, without special or technical training or experience of any kind. Common sense, loyalty, honesty and devotion to the interests of the whole community supply the real key to the success of Glasgow in this as in all her other communal enterprises.

THE WATER, GAS, AND ELECTRIC LIGHT SUPPLY OF LONDON

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At the outset of a survey of the existing arrangements for the supply to London of water, gas, and electric light, it will perhaps be useful to remind the reader of the development and nature of these metropolitan authorities who are in any way concerned with the special services now under consideration.

The most striking feature in the municipal history of London is the lateness of the time at which there appeared a strong central authority, really representative of the whole body of inhabitants. Until 1855 the "metropolis" did not exist; what was loosely called "London" consisted of the one square mile of the City of London with its ancient Corporation, a ring of urban parishes adjacent to it, and an outer ring of semi-urban, semi-rural parishes. All these parishes were administered by vestries which exercised powers derived chiefly from innumerable local Acts of Parliament. There was no uniformity, and there was no "central" authority for the whole area, except in the matter of police, outside the city; and the commissioners at the head of the police were appointed by, and dependent solely upon, the Home Secretary. The first reform came in 1855, when the Metropolis Management Act for the first time defined the metropolis as consisting of the City of London and certain specified parishes around it. The city was left untouched; the parishes were divided into two classes—those in the first elected each a vestry, while those of the second class were grouped into districts, each with a board elected by the parish vestries. The vestries of the first class and the district boards were given control over local sanitation and roads, and such other powers as they possessed or could obtain under local Acts. For the Metropolis as a whole there was established the Metropolitan Board of Works, appointed

by the city corporation, the vestries and district boards, and not elected directly by the ratepayers; it was at first empowered to deal with main drainage and street improvements, and later to provide parks, bridges, embankments, protection against fire, and other services.

Some modifications of details took place subsequently, but there were no organic changes prior to 1888 and 1899. By the former year the Metropolitan Board of Works, though it had done much good work and carried out many important improvements, had fallen into disrepute, partly owing to its non-representative character, which had always prevented it from being a popular body, and partly owing to certain scandals connected with its administration. The Local Government Act, 1888, replaced it by the directly-elected London County Council, and for the first time London obtained a strong central authority which commanded public interest and was entitled to speak as the representative of the whole community. But the fact that it is only within the last twenty years that such an authority has appeared in London has had for Londoners certain serious consequences, some of which will be described in the present article. Then, eleven years later, the London Government Act abolished the thirty administrative vestries and twelve district boards which divided the Metropolis outside the city, and a large number of lesser authorities, and redivided the area into twenty-eight metropolitan boroughs, each with its mayor, aldermen, and councillors.

The existing authorities in the Metropolis who are in any way concerned with, or interested in, the services now to be considered are, then:

(1) *The London County Council,* governing an "administrative county" of 121 square miles, and armed with vast and varied powers. Especially is it concerned with main drainage and protection against fire; it has considerable powers in public health matters, and exercises a supervisory control over the sanitary work of the Borough Councils.

(2) *The Corporation of the City of London.*

(3) *The Metropolitan Borough Councils.*

The Corporation and the Borough Councils are the local sanitary authorities, and are concerned (*inter alia*) with roads and streets, lighting, and local drainage.

(4) and (5) *The Conservancies of the Thames and the Lea.* These two bodies are charged with the regulation and safeguarding of navigation in the two rivers, and the prevention of pollution. The Thames conservancy, which is naturally by far the more important, consists of representatives of government departments, of the councils of counties and county boroughs through which the Thames flows, of the London County Council and City Corporation, and of the ship, dock, and wharf-owners. The Lea Conservancy is composed of representatives of a small number of county and municipal authorities.

(6) *The Metropolitan Water Board,* whose constitution and powers will be described later.

But it must be remembered that the administrative county of London is surrounded now by a broad belt of more or less densely-populated territory which, ever increasing in extent, is in reality part of London, but is not included under the authority of the County Council. This belt of "Outer" or "Greater" London is divided into a number of municipal boroughs, such as West Ham, East Ham, Ealing, Wimbledon, and urban districts like Leyton, Tottenham, Walthamstow. In many respects their interests are identical with those of "Inner London," and the separation for local government purposes has become not much more than artificial.

I. WATER SUPPLY.

I. The Conditions Prior to July, 1904.

For nearly a century up to the month of July, 1904, the water supply of London was furnished by eight private companies, possessed of powers and privileges conferred by Acts of Parliament and subject to conditions similarly imposed. Each company had an area to itself, and each supplied a part not merely of London proper but also of the surrounding districts. The following table gives the names of the eight companies, their dates of formation, and the average number of houses and persons supplied:

TABLE I.

COMPANY.	Year of foundation.	Average number of houses, etc., supplied during year 1903.	Average population supplied during year 1903.
New River	1620	178,011	1,290,579
Chelsea	1723	39,555	291,127
Lambeth	1783	128,703	803,108
Southwark (1822) and Vauxhall	1805	128,193	860,173
West Middlesex	1806	89,831	664,746
East London	1806	223,891	1,482,156
Kent	1810	106,878	641,269
Grand Junction	1811	73,558	476,659
Totals		968,620*	6,509,817

* See note to Table IV.

The population thus supplied was about two millions greater than the population of the administrative county of London, whilst the area was nearly 620 square miles, as against the 121 square miles of London County. Parliament had originally sanctioned the principle of competition by giving to different companies powers of supply in the same areas; thus the West Middlesex, Grand Junction and East London Companies were erected with areas of supply overlapping the areas of the New River and Chelsea companies. But the disadvantages of competition to the companies were too great, and as early as 1815 coalition began. The New River and East London companies divided their common area into two parts, and agreed not to compete, and gradually by formal or informal agreements the process of complete partition was completed by 1818, and three years later received, subject to certain safeguards, the approval of a Parliamentary Committee.

The total nominal share capital of the companies was at the end of 1897, according to the report of Lord Llandoff's Commission,[1] £10,228,548, with a market value of £32,645,189. There was also preference, debenture, and mortgage stock amounting to £6,203,736, with a market value of £9,060,254. The next two tables show the sources from which the water supply was drawn in 1903, the average daily amount per head furnished by each company, and the maximum and minimum annual average in the twenty years 1884-1903:

[1] Market prices were subsequently affected by the prospect of legislation. The end of 1897 represents a normal period.

TABLE II.

SOURCE.	Imperial gallons.	Percentage of total supply.
Thames	42,694,100,774	55.351
Lea	17,336,958,265	22.477
Springs and wells	17,011,484,232	22.055
Ponds (non-domestic purposes only,	90,571,499	.187
Total	77,133,114,770	100.

TABLE III.

COMPANY.	Average daily supply in gallons per head, 1903.	Maximum and minimum daily averages in years 1884–1903.
Chelsea	40.85	Max. 45.31, 1901; min. 33.40, 1888.
East London	27.27	Max. 40.02, 1895; min. 27.27, 1903.
Grand Junction	35.62	Max. 49.61, 1895; min. 35.62, 1903.
Kent	28.47	Max. 33.07, 1895; min. 25.50, 1889.
Lambeth	36.63	Max. 41.95, 1885; min. 30.45, 1889.
New River	31.15	Max. 32.88, 1893; min. 26.80, 1885.
Southwark and Vauxhall	36.36	Max. 42.27, 1895; min. 28.84, 1884.
West Middlesex	34.41	Max. 35.66, 1895; min. 27.52, 1884.
General Average	32.46*	Max. 38.44, 1895; min. 30.80, 1888.

* The lowest average since 1889.

As regards the sources of supply, it should be remarked that the companies which draw from the Thames are subject to various restrictions imposed either in Parliamentary enactments or by agreements with the Thames Conservancy, and there are less complicated restrictions on the amount which may be taken from the Lea. The amount available from these sources is, moreover, limited by natural conditions, and although the supply obtained from springs and wells has increased from 17.3 million gallons per day in 1883 to 46.6 millions in 1903, it has long been evident that new sources must be found. The establishment of the great reservoirs at Staines by a joint committee of the West Middlesex, Grand Junction, and New River companies, the erection of other reservoirs elsewhere in the Thames valley and the Lea district, and the arrangements whereby a deficiency in the area of supply of one company may be made good to some extent by the others—all these only provide for a temporary difficulty, and do not touch the real problem. A Royal Commission in 1891 estimated that the probable population of "Water London"

would be more than eleven millions by 1931. Moreover, the growth of population in the two valleys renders the prevention of pollution even more difficult. It has been apparent for some time that recourse will have to be taken to more distant sources; but inasmuch as the necessary works would be extremely costly and possibly unremunerative, it was scarcely to be expected that private enterprise would undertake them.

Reference has already been made to the conditions imposed upon the companies, and one of them—the restriction of the amounts which may be drawn from the rivers—has already been mentioned. But others require to be noticed in more detail.

(1) The first group relates to the nature and quality of the supply; under the Metropolitan Water Act of 1871 the companies were bound, when required by the proper metropolitan authority, or failing that, the Local Government Board, to provide and keep a constant supply in all districts where regulations for preventing waste, misuse, and contamination, and prescribing the nature and size of pipes, cocks, and cisterns, were complied with by four-fifths of the inhabitants of that district. These regulations were to be made by the companies themselves, with the approval of the Local Government Board. The advantages of the constant supply, as compared with the intermittent supply with cistern storage, are now generally recognized, but it is only quite recently that the obligations of the companies have been enforced. The following table gives the extent of the constant supply at end of 1903:

TABLE IV.

COMPANY.	Houses supplied.	Houses with constant supply.	Percentage.
Chelsea	39,676	39,676	100
East London	226,165	226,165	100
Grand Junction	75,149	75,149	100
Kent	108,611	108,411	99.8
Lambeth	130,860	102,574	78.4
New River	179,026	177,596	99.2
Southwark and Vauxhall	128,871	122,778	95.3
West Middlesex	90,360	90,360	100
Totals	978,718*	942,709*	96.3

* The number of houses given in this table are somewhat in excess of the real number, owing to the nature of the returns made by the companies, but the figures in the two columns are comparable.

This percentage, 96.3 per cent., compares with 57.5 per cent. in 1889, and the marked improvement is due in no small measure to the action of the County Council.

Further, the Waterworks Clauses Act, 1847, gave the owners and occupiers of houses within the area of supply of a company power to compel it to furnish a supply, provided that their number was such that their water rates would amount to 10 per cent. of the cost of laying down pipes. Under an Act of fifty years later twenty consumers could appeal to the Local Government Board as to defects in the quality or quantity of water supplied, or any consumer or interested local authority could similarly appeal to the Railway and Canal Commissioners. The companies were bound to provide sufficiently for the cleaning and watering of streets, the flushing of drains, and free of charge, the extinction of fires. Finally, an Act passed in 1852 obliged the companies to "effectively filter" the water supplied; for this purpose they employed usually distinguished chemists whose reports were presented monthly to the Local Government Board and published, together with the report of the board's own expert, a "water examiner" appointed by the board, but paid by the companies.

(2) The second group of conditions related to finance. An attempt was made to protect the consumers against exploitation by the monopolist companies by (*a*) the limitation of dividends, and (*b*) the settlement of the water charges by Parliament. On nine-tenths[2] of their ordinary shares the companies were limited to dividends of 10 per cent., and on the remainder to 7½ per cent. and 7 per cent.; but they were entitled to make up back dividends to these amounts. On the preference, mortgage and debenture shares the rates of interest ranged from 5 to 2¾ per cent. By 1887 the West Middlesex had paid the maximum dividend for all the years in which it had been in existence, and had commenced to reduce charges; and by the year 1899 the Chelsea, Kent and Lambeth companies had reached the maximum and were paying arrears, the Grand Junction had reached the limit for the part of its shares entitled to dividends of 7 and 7½, while the New River was paying 13 per cent. The East London and Southwark companies were still below the maximum.

[2] It had been assumed that the New River Company's dividend was unlimited, but the Arbitrators in 1904 took the opposite view.

The charges authorized by Parliament differed with the various companies, and ranged from 7½ per cent. to 4 per cent. on the annual rateable value of the houses supplied. Extra charges could be imposed for baths, closets, and high services, and the companies could make their own terms for water for industrial purposes. The average rate for household supply was £4.1.10 per hundred of rateable value but there were great variations. Thus, according to the report of Lord Llandoff's Commission, for a house with bath-room, two closets and one high service, rented at £35 and valued at £28 per annum the charge ranged from 2.3½ per £ of rateable value in the Lambeth area to 8½d. per £ in the district of the West Middlesex Company. For a house, similarly equipped, with a rental of £120 and a valuation of £100 the East London company charged 1.5¾ per £, and the West Middlesex 11d. Yet the report of the commission showed that the companies which charged the higher rates received less per house and per mile of mains than the companies charging the lower rates, since they supplied districts in which the average rateable value was low. Thus the four companies entitled to charge from 7½ to 5 per cent. (the East London, Lambeth, Southwark and Vauxhall, and Kent) received in 1899 £1.10 per house and £233 per mile of mains; the other four companies, limited to 4 per cent., received £2.16.4 per house and £461 per mile of mains. It will be noticed that the revenue of the companies increased automatically, and without any extension of service on their part, with the increase of rateable values in London; these rose in the administrative county by 65.3 per cent. between 1871 and 1891, and considerably, though to a smaller extent, in the surrounding districts.

Finally, the companies, after 1886, were required to make contributions to a sinking fund; if they borrowed money on debentures (and after 1886 they borrowed only in that way) the capital so borrowed was assumed to bear interest at the rate of the average dividend paid on *all* the capital, share or loan, of the company; and the surplus of that amount over the interest payable on the debenture plus 1 per cent. for management was to be paid to the City Chamberlain as a trustee, and invested by him in shares of the companies, the interest being again so invested, in order ultimately to extinguish the capital of the companies, or for any other purpose determined by Parliament. The net effect has not been very con-

siderable; in 1897 the amount received by the Chamberlain was only £4,804, though it was estimated that the annual amount available would reach to nearly £120,000 by 1915.

2. Municipalization.

These arrangements have been described at some length, since they constitute the most elaborate attempt yet made in England at the control of public services supplied by private enterprise. But they were never regarded as satisfactory, and the movement towards municipal ownership set in early. It was recommended by a Royal Commission in 1869; it was proposed by the City Corporation and the vestries in 1891; it was again recommended by a Parliamentary Committee in 1892; legislative efforts in the same direction were made constantly by the County Council after 1895. Though all these efforts failed, the discussion of the existing anomalies and the attention drawn to the growing difficulties of an adequate supply had their effect; gradually the principle of municipalization was generally accepted, and discussion was concentrated on such questions as the terms of purchase and the constitution of the new authority. Ultimately a Royal Commission, under the chairmanship of Lord Llandoff (1898-1902) recommended the purchase of the undertakings and the establishment of a Water Board; and with a number of alterations its proposals were adopted in the Metropolitan Water Act, 1902.

The new Metropolitan water area is about the same size as the area supplied by the companies. One or two small districts hitherto included are now excluded, but their place is taken by the areas hitherto supplied by the Tottenham and Enfield Urban District Councils, and by two small rural areas. In this "Water London" there are a great number of authorities; and as the government was unwilling to agree to the proposals of the County Council, which desired to supply its own area alone or, preferably, to deal with its own area directly and to supply the outside authorities in bulk at a fixed price, recourse was had to the plan of a Joint Board. The Metropolitan Water Board consists of representatives of the following authorities:

Inner London..	County Council	14	
	City Corporation	2	
	29 Met. Borough Councils	29	
		—	45
Outer London..	5 County Councils	5	
	2 Town Councils	3	
	4 Urban District Councils	4	
	5 Town Council and 33 Urban District Councils in 7 groups[3]	7	
		—	19
	Thames and Lea Conservancies	2	2
		—	—
	Total members		66

The board elects its own chairman and deputy chairman from its own ranks, and may allot salaries to them if it so chooses, but it has resolved not to do so.

On July 25, 1904, the new authority took over the undertakings of the eight companies of the Staines Reservoirs Joint Committee, and of the Tottenham and Enfield Urban District Councils, with all their rights and liabilities. The purchase price of the undertakings was fixed by a court of arbitration consisting of a distinguished ex-lord of appeal, a well-known engineer, and a former Permanent Secretary of the Local Government Board; and in coming to a decision they were directed by the Act to make no allowance for compulsory sale, or for appreciation or depreciation in the market value of shares arising from the prospect of compulsory purchase, but only for the cost of reinvestment, or possible loss in awaiting it. The following table shows the amount claimed by the various companies, and the amount awarded by the arbitrators, whose decisions on points of law were all confirmed on appeal. The debentures were taken over by the board, and are to be replaced within two years by new "water stock" producing an equivalent amount:

[3] In each of these groups the local authorities elect a joint committee, which in turn elect the representative, who must be a member of one of the councils.

TABLE V.

COMPANY.	Amount of claim.	Amount of award in cash.	Debentures on "appointed day."
	£	£	£
Chelsea	4,750,000	3,305,700	249,217
East London	7,204,144	3,900,000	2,251,166
Grand Junction	4,830,000	3,349,500	500,250
Kent	3,715,614	2,712,000	333,880
Lambeth	5,511,342	4,301,000	1,045,753
New River	13,260,144*	5,967,123	2,758,000
Southwark and Vauxhall	5,674,140	3,603,000	2,487,982
West Middlesex	4,200,240	3,524,000	772,000
Staines Reservoirs Committee	.....	.....	1,226,700
	49,145,624	.....	.....
5% on claims other than that of New River Company†	1,794,274	.....	.....
Totals	£50,939,898	£30,662,323	£11,624,948

* This is the original claim. When the Court of Arbitration gave judgment that the dividends of the New River Company were limited to 10 per cent., a judgment subsequently confirmed, the claim was reduced to £8,214,163.

† Except the New River Company, the companies claimed 5 per cent. on their claims or awards to cover loss pending, and cost of, reinvestment. The awards included sums in respect of these additional claims.

To pay these amounts the board may raise money by the issue of "water stock" bearing interest at not more than 3 per cent. and to be repaid in 100 years; and for other purposes it may borrow in the same way, but for a maximum period of only sixty years. Its borrowing operations are controlled, and its accounts audited by the Local Government Board.

The charges to be levied by the board are not to be reduced below those in force in the June quarter of 1903 unless such reduction will not cause a deficit, but within three years of the transfer the board is to introduce into Parliament a bill to provide for (*a*) a uniform scale of charges throughout the whole area, and (*b*) the collection of these charges along with the local rates. In the event of the receipts in any financial year not being equal to the expenditure, the deficiency is to be made up by rates levied throughout the area by precept addressed by the board to local authorities.

The new authority has been in existence for so short a time that it is impossible to express any opinion as to its probable working. Its constitution is cumbrous and unrepresentative, and so far it has aroused little, if any, popular interest. But the creation of

a central water authority of any kind, the speedy establishment of a uniform scale of charges, the consolidation of responsibility for the supply of the needs of an ever-increasing population—all these are substantial gains. On the financial side it is to be feared that there is not much prospect of relief for the consumers. The abolition of directors' fees and the consolidation of management may result in some economies, but it seems inevitable that the new authority must speedily seek fresh sources of supply, and undertake works which cannot be financially remunerative but must involve higher prices to the consumer or, as a lesser evil, a charge upon the rates.

II. LIGHTING.

A. Gas.

In many respects the history of the gas supply of London is a repetition of the story of the water supply, with the difference, however, that municipalization has not taken place, but the public authorities have turned their energies to competition with the gas companies by the supply of the rival illuminant-electric light.

The first company authorized by Parliament, by the usual Private Act, to supply part of what is now the metropolitan area, was the Gas Light and Coke Company, founded in 1810; and a number of others speedily followed. As with the water companies, Parliament intended that there should be competition, and for a considerable time there was a real and effective rivalry, with the natural results—chaos in the streets, excessive capital expenditure and great waste owing to the construction of different sets of mains in the same streets by competing companies, and a fall of charges which benefited the consumers for a time, but brought the companies into financial difficulties, and ultimately damaged the consumer, since when competition was eliminated in any area the surviving company naturally raised its charges in order to recoup itself for its losses during the struggle. The companies soon realized the costliness and futility of this rivalry, and as early as 1823 the first attempts to end it were made; for some years new companies were confined to separate areas. But in the absence of any effective regulation by the legislature, or of any strong local authority which could be en-

trusted with the supervision of the companies on behalf of the inhabitants of London, this policy of separate areas amounted to the creation of monopolies, and in 1842 the principle of competition was reestablished. The companies then began to make arrangements between themselves, and tried first to come to agreements as to the "districting" of London; an arrangement was made for this purpose in 1851, but it could not be enforced, and a bill to give Parliamentary aut' -it:' to the scheme failed to pass. In 1859 a Parliamentary committee enquired into the whole question, and recommended that each company should have a district assigned to it, and in return should be subject to restrictions as to prices and dividends, and conditions as to the quality of the supply; and in the following year there was legislation on the lines of this report. In the next decade the question of municipalization was much discussed, and though the Metropolitan Board of Works was steadily hostile to all schemes of the kind, there were a number of proposals put forward, particularly by the city corporation. None of them were carried, but the effect of the agitation, and the sympathetic attitude of Parliament, was the recognition by the companies of the necessity of submission to control, if they were to retain their privileges, and in 1875 and 1876 there were important legislative enactments on the subject. About the same time the companies began to combine, till the fifteen companies existent prior to 1870 had been reduced to three by 1885. The present companies have districted London, and there is no competition. Of recent years little has been heard of proposals for municipalization, partly owing to the amount of the control exercised over the companies and still more to the fact that the local authorities of the metropolitan area have preferred to devote their energies to the supply of the competing illuminant.

At present the supply of gas to the adminstrative county is almost entirely in the hands of three companies—the Gas Light and Coke Company, the South Metropolitan Gas Company, and the Commercial Gas Company. The first of these has the greater part of the area north of the Thames, and a small territory to the south; the South Metropolitan has the chief part of London south of the river; the Commercial has a district in the northeast. Smaller portions of the administrative county—in each case suburban areas—are supplied by the Brantford Company in the west, the Wandsworth & Putney Company in the southwest, and the South Suburban Com-

pany in the south. But we may conveniently confine our attention to the three great companies, and the following tables give some statistics in regard to them for the year ending June 30, 1904:

TABLE I.

		Gaslight and Coke Company.	South Metropolitan Gas Company.	Commercial Gas Company
Share Capital	Authorized	£21,643,065	£6,7[illegible]	£2,235,000
	Paid up	21,643,065	6,250,000	1,935,000
Loan Capital	Authorized	5,073,975	2,048,994	550,000
	Paid up	4,323,975	1,832,700	450,000
Premiums		1,586,807	808,860	49,589
Receipts	Gas	3,051,844	1,255,712	348,153
	Meters	.....	58,265	18,261
	Stoves	62,740	46,556	7,854
	Residual Products	895,065	550,777	104,111
Gross Profit		1,225,749	445,944	123,118
Dividend Paid on Shares		4 1-5%	5 5-12%	5½ and 5%

TABLE II.

	Gaslight and Coke Company.	South Metropolitan Gas Company.	Commercial Gas Company.
No. of consumers	398,247	269,351	55,571
No. of public lamps supplied	49,004	22,449	4,205
Price of gas to consumer, per 1000 cubic feet, in June, 1904	3s.	2s. 1d.	2s. 6d.
Charge for public lamps per 1000 cubic feet	2s. 3d.	2s. 1d.	2s. 4d.
Candle power of gas	16	14	14

The charges and dividends of the companies are regulated and limited by a sliding scale, originally imposed upon them by the legislation of 1875 and 1876. In those years standard prices were fixed —3s. 9d. per 1,000 cubic feet for the Gas Light and Coke and Commercial Companies, 3s. 6d. for the South Metropolitan; when these rates were charged the companies could pay dividends of 10 per cent, but for every penny above the standard charge the standard dividend must be reduced ¼ per cent., whilst for every penny below the standard the dividend could be increased by ¼ per cent. In recent years (1896-1902) the three companies have converted their stock, under parliamentary authority, into corresponding amounts bearing a standard dividend of 4 per cent, so as to bring the nominal value of their stocks near to the market value—*i. e.*, the nominal

stock has been multiplied by 2½, and the standard dividend correspondingly divided by 2½. Further the standard prices have all been reduced since the year 1900, and the variation of the dividend has been modified also. The present situation is that the standard prices are: For the Gas Light and Coke, 3s. 4d.; for the South Metropolitan, 3s. 1d.; for the Commercial, 3s. 3d. [The South Metropolitan price would have been 3s. 3d. but the company gave up 2d. in order to be allowed to supply 14-candle gas, and the Commercial surrendered part of its price for the same reason.] For all three companies the dividend varies 2s. 8d. per cent. for every penny change in the price of gas. The following table shows the prices in December of the years 1895-1904; it should be noted that for its small area on the south side of the Thames the Gas Light and Coke Company could not charge more than the South Metropolitan till 1901, and now may not charge more than 2d. above the price of the South Metropolitan:

TABLE III.

COMPANY.	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
Gaslight and Coke:										
North of Thames ..	2.10	2.10	2.10	3.0	2.11	3.5	3.0	3.0	3.0	2.11
South of Thames ..	2. 3	2. 3	2.3	2.3	2. 1	2.8	2.5	2.5	2.5	2. 2
South Metropolitan	2. 3	2. 3	2.3	2.3	2. 1	2.8	2.3	2.3	2.3	2. 0
Commercial.....	2. 6	2. 6	2.6	2.6	2. 6	3.0	2.8	2.8	2.6	2. 5

It may be mentioned here that in December, 1904, the charges of the other three companies, previously mentioned as supplying portions of the metropolitan area, were: South Suburban, 2s. 7d.; Wandsworth and Putney, 2s. 2d,; Brantford, 2s. 9d.

It should be noticed, further, that the legislation of 1875-6 directed that all new stock should be offered to the public and allotted to the highest bidder; any premiums arising from these sales were to be applied by the companies as capital, but not to bear interest. The companies obtained in this way the large amounts given in Table I above, but the effect of the recent conversion of the stock has naturally been to reduce very considerably the sums so obtained, and in some cases stock has been issued below par. Finally, the South Metropolitan and Commercial Companies are now authorized to offer any new stock first to their employees and con-

sumers, at about current market price, and this power they commonly use. The growth of electric lighting is a serious menace to the gas companies, and is bound to affect their prices; they are actively engaged in pushing the use of gas for cooking purposes, and in endeavoring to prove that in some respects gas is superior to electric light for purposes of street illumination.

The quality of the gas supplied is fixed at 16-candle power for the Gas Light and Coke Company and 14-candle power for the other two. The County Council and the City Corporation both watch over the interests of the consumers within their areas by the appointment of Gas Examiners; there has been some difference of opinion between the authorities and the companies both as to the method of testing and as to the standard of purity, and the question is still under discussion. The London County Council is also the authority for the testing of the meters supplied by the companies whenever the consumers so desire and on payment of a small fee (6d. to 1s.).

B. Electric Light.

In recent years the Metropolitan local authorities—the Vestries prior to 1899, and then the Borough Councils which superseded them—have been actively engaged in the provision of electric light. The Electric Lighting Acts of 1882 and 1888 authorized the Board of Trade to grant "provisional orders," *i. e.*, orders needing the more or less formal confirmation of Parliament, to local authorities and private companies enabling them to undertake the supply of electric light and power within areas prescribed in the orders. In the case of a local authority and a company applying for powers in the same area, preference has generally been given to the local authority; when the concession is granted to a company it cannot be bought out until the end of forty-two years, except by friendly agreement. Local authorities may be authorized to supply electricity in "any area, although the same or some part thereof may not be included within their own district."

In London, in the middle of the year 1905, the supply of electricity was divided nearly equally between municipal and private undertakings. In the city of London the supply was in the hands of two companies. Of the twenty-eight metropolitan boroughs, in fourteen the councils were actually engaged in providing electric

light and power from works established by themselves, in one the works of a private company had just been purchased, and in another a scheme was under consideration; two councils had obtained provisional orders, but had let them fall into abeyance. In the remaining boroughs the supplies were furnished by private undertakings—the order in each case being consented to by the local authority. The municipal services were in areas whose total population amounted to about five-ninths of the inhabitants of the administrative county. The Metropolitan Borough Council of Shoreditch in 1897 commenced to utilize the heat raised by a dust destructor for the purpose of generating electricity, and the plan proved so successful that it has been imitated by a number of authorities, both within London and outside.

This local energy and enterprise is in many ways admirable, but it has some distinct disadvantages, especially of an economic character. In the case of electricity it is particularly true that the larger the area and amount of supply the smaller will be the cost of production and distribution per unit. The London County Council recognized the defects of the artificial and somewhat arbitrary limitation of areas in London, so far as this particular matter is concerned, by promoting bills to enable it to supply electricity in bulk to the borough councils, which would be authorized distributors. As the County Council is the tramway authority, with an extensive system of electric cars, the combination would probably have produced still further economies. But the efforts failed, and the attempt made in 1905 by a private combination to secure an Act authorizing it to establish a bulk supply for the whole of the administrative county at a uniform rate, failed before the opposition of most of the local authorities. But it is probable that the attempt will be repeated, and it is difficult to see how, from the economic standpoint, it can properly be opposed; and the possible abuse arising from a monopoly could be guarded against by a stringent system of control.

MUNICIPAL OWNERSHIP AND OPERATION OF STREET RAILWAYS IN GERMANY

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The introduction of the electric railway marks a turning point in the history of street railway development in Germany. It inaugurated a movement toward municipal ownership and operation which is sweeping over the entire territory of the empire and which includes not only the larger cities, such as Munich, Frankfort, Cologne and Nürnberg, but small towns, such as Bonn, Trier, Colmar and Graudenz. The radical change in public opinion as well as in the attitude of the town authorities toward the question of municipal ownership and operation is due in part to the feeling of antagonism toward the street railway companies; an antagonism traceable to the never ceasing struggle to secure from them something approaching efficient service. A further factor which has exerted no small influence is the fact that the introduction of electricity simplified considerably the conditions of street railway management and made the town authorities less reluctant to assume the burden of this new function. It is a significant fact that during the entire horse railway period but two towns, both of less than ten thousand inhabitants—Wiesloch and Friedrichshagen—owned and operated their street railway systems.

The communalization of street railways began in England at a much earlier date than in Germany. As early as 1897, forty-two English towns had acquired title to their street railway systems and eight of these, viz: Glasgow, Hull, Huddersfield, Blackpool, Leeds, Sheffield, Plymouth and Birmingham had embarked upon municipal operation. Not until 1898 did one of the larger German cities—Frankfort—commit itself to the principle of municipal ownership and operation.

It may seem surprising at first glance that while the movement for the municipalization of gas plants of German cities began in the

early sixties, there seemed to be little or no desire to take over the street railways. In 1902, fifty-six of the seventy-three cities with a population of fifty thousand and over, owned and operated their gas plants. The course of development is shown in greater detail in the following table:[1]

Ownership of Gas Plants.

Cities with Population of	1868.		1885.		1895.		
	Private.	Munic.	Private.	Munic.	Private.	Munic.	
Under 5,000	90	34	88	36	70	46	(28)*
Bet. 5,000–10,000	74	69	71	102	83	111	(89)
" 10,000–20,000	66	45	81	74	55	99	(61)
" 20,000–50,000	16	17	33	41	33	76	(40)
Over 50,000	12	10	17	29	13	35	(16)
	258	175	290	282	254	367	(234)

* Figures in parenthesis represent the number of cities in which the gas supply was made municipal at the time of its introduction.

The municipal gas plants were successful beyond the expectations of the advocates of municipal ownership. The influence of these municipal plants was not confined to the cities concerned but also served to raise the standard of service in those communities in which the gas service was still in the hands of private companies. In fact, between 1850 and 1890 the efficiency of the most important municipal services, such as water supply, lighting, sanitation and poor relief was raised to a point which placed the cities of Germany in the vanguard of municipal improvement.

In the midst of this general improvement of municipal conditions, urban transportation remained in a most primitive state. In fact it was not until 1865 that the first street railway line was built—a short experimental line between Berlin and Charlottenburg. Not until 1872, twenty years after the introduction of street railways in the United States, was the construction of street railway lines on any considerable scale begun. Hamburg had no street railways until 1866; Stuttgart until 1868; Munich until 1876; Cologne until 1877; Hamburg until 1878; and Nürnberg until 1881. As late as 1900 there were still nine cities with a population of 40,000 and over without street railways.

[1] For this table, as well as other assistance in the preparation of this article, the author begs to acknowledge his indebtedness to the work of Dr. Hugo Lindemann "Arbeiterpolitik und Wirtschaftspflege in der Deutschen Staedteverwaltung," Stuttgart, 1904.

The backwardness of this service was due in great part to the small area of the German cities. The concentration of population within the old city walls made the problem of urban transportation of relatively little importance. Furthermore, the fact that in the German cities of the '70's and '80's the residence and business sections were not separated, tended to reduce the necessity for improved transit facilities and delayed the development of a true appreciation of the bearing of rapid transit on the improvement of city conditions. It was not until the cities of Germany began to extend their areas through the incorporation of suburban districts that the problem began to assume vital importance. When the city authorities were awakened to the tremendous social value of a well-developed transportation system, they found their hands tied in the attempts to secure it. The franchise grants of the '70's and '80's were generally made for a term of at least twenty-five and in some cases for forty and fifty years. Under the terms of these grants the street railway companies could not be compelled to extend their lines into the suburban districts. The companies were not disposed to take any chances, inasmuch as the original franchise grants imposed heavy financial burdens which would only permit of the construction of lines in the more densely populated sections. The efforts to secure an extension of service from the street railway companies led to long negotiations and gave rise to considerable bitterness of feeling. The only possible solution seemed to be the expropriation of the lines, but this involved expenditures which would have taxed the credit and resources of the larger cities to the utmost and would have been entirely beyond the reach of the smaller cities.

Fortunately the necessity for better service became acute at a time when the street railway companies throughout Germany were applying for the right to change their motive power from horse to electrical traction. The new system was so much more efficient and at the same time so much more economical that no company could afford to forego its use. The city authorities found themselves therefore in an entirely new relation to the companies. Instead of being petitioners for favors, they held the key to the situation. The position of the companies was further weakened by the fact that in most of the larger cities the franchises granted during the seventies had but comparatively few years to run.

The negotiations between the city authorities and the street railway companies during the period of 1890-1900 constitute one of the most interesting chapters in the history of German municipalities. The main purpose of the negotiations so far as the cities were concerned, was to secure the construction of additional lines in return for the new privileges. Only after long continued negotiations had demonstrated the impossibility of arriving at an amicable understanding was the desirability of municipalization seriously discussed.

The Steps Towards Municipalization.

The experience of Frankfort, Munich, Cologne and Nürnberg is typical of the difficulties encountered in bringing about an adjustment to the new conditions and also explains the rapidity with which the movement for municipalization of street railways has spread through the cities of Germany.

In 1880 the city of Frankfort granted to a Belgian company the right to operate a railway over certain specified streets. The duration of the franchise was limited to twenty-five years, but the city reserved the right to terminate the contract at the expiration of twelve years and take over all the company's lines. If the city availed itself of this right, the company was entitled to receive, until the expiration of the franchise in 1904, an annual sum equal to 30 per cent. of the average gross income during the three years, 1900, 1901 and 1902. If the city preferred, this annual payment could be capitalized at 6 per cent. and the entire amount paid in one lump sum. In return for the franchise the company was compelled to pay to the city 5 per cent. of the gross receipts from all lines. As the expiration of this first twelve year period approached it became evident that the sentiment in favor of municipalization was not sufficiently strong to lead to a termination of the contract. On the 24th of March, 1891, the city entered into a new contract with the company. Under its terms the city agreed to extend the franchise until December 31, 1914, but reserved the right to terminate the contract and take over the lines either on January 1, 1898, or on January 1, 1906. The annual payment of the company to the city was fixed at 6 per cent., with the exception of certain of the new lines which were classed as suburban and from the gross receipts of which the company was only compelled to pay

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3 per cent. The contract provided, furthermore, that the company pay the following sums into the city treasury:

During the first two years of the franchise.....	$7,500	annually
During the following three years of the franchise.....	10,000	"
During the following five years of the franchise.....	12,500	"
During the following five years of the franchise.....	15,000	"
During the following five years of the franchise.....	17,500	"
During the following five years of the franchise.....	20,000	"

In addition, if the company's accounts showed a net profit exceeding 10 per cent. the city was entitled to one-half of such excess. If the net profits exceeded 16 per cent. the city was entitled to two-thirds of the excess.

The rapid growth of the city during the first five years of the life of this contract[2] clearly demonstrated that while the city was receiving a fair return for the use of its streets, the existing lines were totally inadequate to meet the needs of the newer sections of the city. Both branches of the local legislative assembly—the council and the "Magistrat"[3] determined to use the right to terminate the contract as a weapon to compel the company to construct much-needed lines in the outlying districts of the city. Although the possibility of placing the street railway system under municipal operation was discussed, the sentiment was not sufficiently strong to make this step seem probable. The negotiations between the company and the city were prolonged but fruitless. The situation was complicated by the fact that the company was anxious to change its motive power from horse to electricity, for which privilege the city was also determined to exact a *quid pro quo*. The only solution for the deadlock which ensued was the termination of the contract between the city and the company. On November 10, 1896, the city gave notice that it would take over the lines on January 1, 1898. The reluctance of the city authorities was all the greater because the decision involved a heavy financial burden, for under the terms

[2] According to the census of 1900, the population of the city proper was 288,989, but including the suburban districts within a radius of six miles from the center of the city, which in reality form part of the city, the total population dependent upon the street railway lines of the city amounts to over four hundred thousand (436,792).

[3] The "Magistrat" of the Prussian cities is one of the organs of local government combining executive with legislative functions. The individual members are the heads of administrative departments. As a legislative body the "Magistrat" occupies a position similar in some respects to that of the upper branch of the American town council.

of the contract the city had agreed that in case it decided to take over the lines it would pay to the company, until the expiration of the franchise in 1914, an annual sum equal to 30 per cent. of the average gross income of the years 1895, 1896 and 1897.

Although the street railway lines became the property of the city on the 1st of January, 1898, the authorities were unwilling immediately to assume the burdens involved in municipal operation. The "Magistrat" in a report submitted to the council laid special emphasis on the difficulties incident to the change from horse power to electricity, and pointed out that no matter how carefully the change was planned it would certainly cause considerable inconvenience. In these circumstances municipal operation would be introduced under the most unfavorable auspices. In order to avoid this, the city adopted a plan which other German cities have followed, viz: to lease the lines for a brief period to the same company to which the contract for the construction of the electrical equipment was awarded. In 1898 a contract was made with two electrical engineering firms for the transformation of the horse railway into an electrical system and for the construction of a number of additional lines. Under the terms of this contract the operation of the entire railway system was handed over to the construction companies for a term of five years with the reserved right on the part of the city to terminate the contract prior to the expiration of the five year period by giving one year's notice.

The successive steps leading to the municipalization of the street railway system of Munich[4] present peculiar interest, owing to the many difficulties and discouragements which the municipal authorities had to face, both in their dealings with the company during the period of private ownership as well as during the first years of municipal ownership.

In 1882 the city granted to the Munich Street Railway Company the exclusive right to operate street railways within the city limits. Under the terms of this franchise, the company was required to pave, repair, maintain and clean the section of the street between the rails and sixteen inches to either side thereof. The city reserved to itself the right to do all such paving, repairing and cleaning and to charge the same to the company. The rates of fare to be charged by the company were minutely specified. The lines were divided

[4] According to the census of 1900, the population of Munich was 499,032.

into sections of three-fifths of a mile each. For each section the charge was not to exceed one and one-quarter cents, but the company was permitted to fix a minimum fare of two and one-half cents no matter how short the distance travelled. In return for this franchise the company was compelled to make the following annual payments to the city treasury:

1. Of the first $250,000 gross receipts, two (2) per cent.

2. Of the succeeding $12,500 gross receipts, two and one half (2½) per cent.

3. On all receipts above $262,500 three (3) per cent.

The contract with the company had not been in operation five years before controversies arose between the city and the company relative to the construction of new lines. The desire on the part of the authorities to relieve the congestion in the central sections of the city, combined with the rapid growth of the population, made the extension of existing lines imperative. The company was unwilling, however, to incur the expense unless the city was prepared to grant terms more favorable than those of the original contract. Negotiations with the company extending over a period of four years having proved fruitless, the "Magistrat"[5] and council decided to build the new lines. They were not prepared, however, to take over the operation of the new lines and therefore entered into a supplementary contract with the street railway company on the 17th of February, 1892, under which the new lines were handed over to the company to be operated for the account of the city. Under this arrangement the company was permitted first to deduct the cost of operation from the gross receipts. The remainder of the income was then divided as follows: The city first to receive 4 per cent. on the cost of construction, 2 per cent. depreciation charge and a sum equal to 3 per cent. of the gross receipts. The remainder, if any, was then to be divided between the city and the company in the ratio of three to one. This contract of February 17, 1892, had been in operation but a short time when the question of the electrical equipment of the entire system arose. Further negotiations with the company resulted in the signing of the contract of October 25, 1897, according to the terms of which the entire street railway system

[5] In the Bavarian cities the "Magistrat" occupies the same position as in Prussia, viz.: exercising both executive and legislative functions. The members of the "Magistrat" are elected by the Council subject to the confirmation of the Central Government. The members of the Council are elected by the people on restricted suffrage.

became the property of the city. Instead of taking over the operation of the system, it was stipulated that the Munich Street Railway Company should continue to run all the lines until the termination of the original franchise period, viz: July 1, 1907. Owing to the fact that certain sections of the system were built by the company and certain others by the city, the adjustment of the financial relation during the period, 1897-1907, was fraught with considerable difficulty. The agreement as finally reached provides:

First. Inasmuch as the introduction of electricity made much of the old rolling stock worthless it was necessary to make a large outlay for new equipment and cars. Instead of making these purchases from city funds the contract stipulated that all such purchases be made by the company after consulting the city authorities, and that the city return to the company each year the amount thus expended. For the renewal of equipment the contract provided for a "Renewal Fund," which is to receive at least six per cent. of the gross receipts.

Second. The gross receipts from lines built by the city must be paid into the city treasury, in return for which the city guarantees to the company a sum sufficient to pay all operating expenses.

Third. The gross receipts from lines built by the company are likewise paid into the city treasury, but in this case the city guarantees to the company not only all operating expenses, but also agrees to pay to the company annually, until 1907, a sum equal to the gross profits of the year 1896-97, viz.: $230,804.76.

Fourth. The contract further stipulates that the company is to receive twenty-five (25) per cent. of the net profits.

As we shall see when we come to consider the financial results of municipal ownership, the contract of the city of Munich with the street railway company, while most profitable to the company, has been a constant drain on the resources of the city. Since 1897 the stockholders have enjoyed a guaranteed dividend of 11 per cent., with the possibility of a larger dividend if a net profit remains after deducting all fixed charges. Until the close of the fiscal year, 1904-1905, the city treasury has been compelled each year to meet a considerable deficit. The amount of this deficit and the causes thereof will be considered in a subsequent section.

The duration of the original franchises granted to the Cologne Street Railway Company ranged from twenty-five to thirty years, but were made at different periods. The first of these expired in 1902, another will expire in 1916 and still another in 1924. Early in

the '90's the city authorities suggested to the company the prolongation of certain existing lines and the construction of a number of new ones, but met with no encouraging response. As in Frankfort and Munich, the situation was further complicated by the desire of the company to secure the right to equip the system with electricity. The popular clamor for improved transportation facilities became so strong that the city decided in 1896 to undertake the construction of five new lines on its own account and to equip the same with electricity. Here a new difficulty presented itself. The original franchises gave to the company the exclusive right to run cars on certain streets. As soon as the resolution of the city council became known, the company gave notice that it would contest the right of the city to construct any lines which would directly or indirectly compete with the lines of the company. To make this threat effective the company immediately applied to the Landgericht of Cologne for an injunction to restrain the city from building the new lines. In a long and carefully reasoned opinion the court held that the city could not, without violating the terms of the franchise, construct any new lines which would compete directly with the existing lines of the company. An appeal was taken by the city to the Oberlandesgericht and finally to the Imperial Supreme Court, but with the same result. These decisions placed the city in a most difficult position. The choice seemed to lie between a policy which meant a complete surrender to the company or one which, by delaying the change from horse traction to electricity, would work great harm to the social and economic welfare of the city.

In view of these difficulties the city council, by resolution of March 31, 1897, decided to take over the entire street railway system provided some arrangement could be made with the company to this effect. A commission was appointed to report a plan. The commission presented a report favorable to city ownership and operation, and on the 2d of January, 1900, a contract with the Cologne Street Railway Company was finally signed under which the city became owner of all the company's lines. It is true that the city had to make great financial sacrifices in order to become master of the situation, but it was felt that a continuation of the antagonism between the company and the city would work incalculable harm to the economic and social welfare of the community. Under the terms of the contract the city agreed to take over all the real estate and

rolling stock of the company; the former at an appraised value of $661,795.60, the latter at an appraised value of $333,995. In addition the city agreed to pay to the company in return for the cancellation of the franchises the following sums:

First. From the first of January, 1899, to the 30th of June, 1913, $250,000 annually.

Second. In addition, the following sums:

For the year 1903	$6,250
For the year 1904	12,500
For the year 1905	18,750
For the year 1906	25,000
For the year 1907	31,250
For the year 1908	37,500
For the year 1909	43,750
For the year 1910	50,000
For the year 1911	56,250
For the year 1912	62,500
For the half year Jan. 1 to June 30, 1913	34,375

The contract was given retroactive effect in providing that the lines were to be regarded as belonging to the city from and after the 1st of January, 1899, but that the company should continue to run the same for the city's account until such time as might be necessary to perfect the organization under city operation. On April first, 1900, all the lines were placed under city management. The city was given the privilege, under the contract, to fulfil all its financial obligations towards the company at once by capitalizing the annual payments and making payment of one lump sum. Of this privilege the city has not as yet availed itself.

The first problem confronting the city was to equip the entire system with electricity. In fact, Cologne was the last of the larger German cities to retain horse power and the city authorities therefore felt a special obligation to make the change with all possible speed. Before the close of 1901 the four principal lines were equipped with electricity. The city immediately began to plan the construction of a number of new lines, not only within the city limits, but also to connect the city with the smaller suburban towns. During the fiscal year 1902-1903 five new lines within the city limits were constructed, the following year a number of the existing lines were lengthened, and during the year 1903-1904 the city took over three existing suburban lines.

In Nürnberg, as in Frankfort, Munich and Cologne, the communalization of the street railway system was forced upon the community because of the impossibility of securing from the street railway company the kind of service which the rapidly growing city required. The original franchises were granted in 1881 for a period of forty years. In 1897 the Nürnberg-Fürther Street Railway Company applied for permission to substitute electricity for horse power. On the 13th of August, 1897, a new contract was entered into under which the company was given this privilege. In view of the great expense involved in the introduction of the new system, the company made a strong plea for an extension of the franchise beyond 1921. The city finally agreed to an extension of five years, viz: to 1926, provided the company would undertake the construction of three new lines.

Within a comparatively short time after the signing of this contract the city authorities began to realize that they had made a serious mistake. Nürnberg was rapidly acquiring a position as one of the leading industrial cities of Germany. Its population was increasing at an extraordinary rate. In 1899 a number of suburbs had been incorporated into the city limits and in the immediate vicinity were a number of smaller towns which in fact formed part of the municipal aggregate although not legally a part of the city. It was evident that in order to relieve the congestion of population in the city proper an elaborate system of urban and interurban railways would be necessary. Negotiations were opened with the company with a view to securing such extensions. The company in its reply expressed a willingness to make all the extensions desired, provided the city was willing;—First, to extend the original franchises beyond 1926; and, secondly, to guarantee to the company a net profit on all new lines equal to the average net profit on the lines included in the original franchises.

The apparent one-sidedness of this proposition aroused considerable feeling against the company, which was aggravated by differences growing out of the interpretation of the contract of August 13, 1897. Before the close of 1898 the city authorities were convinced that the only possible solution of the problem lay in the construction of the new lines, either by some other company or by the municipality itself. Negotiations were opened with another company but led to no definite results. The authorities were con-

vinced by this time that the city would have to build the new lines and be prepared to take over their operation. In December, 1901, application was made to the Bavarian Minister of Internal Affairs for leave to construct and operate certain lines extending both within and without the city limits. In December, 1901, the necessary permission was granted, but objection was immediately filed by the company on the ground that the lines planned would compete directly with existing lines and were, therefore, in violation of the terms of the franchise. The city, in its reply, not only contested the right of the company to make any objection to the proposed lines, but submitted a more elaborate plan involving the construction of a far greater number of lines. In deciding upon this larger plan the city council was influenced mainly by the fact that the territory incorporated within the city limits in 1899 was without adequate transportation facilities. It was hoped that cheap and sanitary workingmen's dwellings would be constructed in these quarters and in order to encourage this larger social purpose the city extended the water, gas and drainage services, and was determined to secure a similar extension of the transportation service. But it was evident that property owners would not be willing to build until an efficient and relatively cheap transportation system was provided.

On the 7th of July, 1902, the Bavarian government gave permission to the city to construct the larger system with the understanding that all questions affecting the rights of the company be settled by the courts. The company had already filed a bill to restrain the city from building the lines, but the suit was brought to a sudden close by the announcement that the city had decided to purchase all the company's lines and that an agreement to this effect had been reached. Under the terms of this agreement, which was ratified by the company on October 20, 1902, the city agreed to pay to the company for the real estate, rolling stock and franchise $2,835,000, *i. e.*, $525 for every share of stock (par value $250). The payment was made in city bonds bearing 3 per cent. interest. The bonds began bearing interest in January, 1903, but for the year 1902 the city agreed to guarantee to the stockholders a dividend of 8 per cent. The net profits of the year 1902 not being sufficient to pay this dividend, the city was obliged to make up the deficit of $6,605.

On the 6th of June, 1903, the entire system passed into the hands of the city. Work on the extension of the lines was immedi-

ately begun. Before the close of August, 1903, two of the most important lines had been extended to the suburbs of the city. During the fiscal year 1903-1904 over $80,000 were expended on new lines. The city also reduced the fares on certain lines for the purpose of relieving the congestion of population in the central districts. Thus, after a long struggle extending over seven years, the city authorities found themselves complete masters of the transportation situation.

The Conditions of Municipal Operation.

(*a*) Financial Results.

In considering the results of municipal management, it is important to bear in mind that in all the German cities which have adopted this policy, and particularly the four cities now under consideration, the street railway administration is struggling under exceptionally heavy financial burdens, due in part to the necessity of large outlays for the construction of new, and in the main, unprofitable lines, but mainly owing to the large indemnities which these cities were compelled to pay for the unexpired franchises. A further fact which has had considerable influence is the economic reaction against over-speculation, from which many of the German cities are at present suffering. It is not surprising, therefore, that the first years of municipal management do not show brilliant results.

Of the four larger cities that have embarked upon municipal operation of street railways, the financial situation of the Frankfort system is the most favorable. At the close of the fiscal year 1903, after paying all operating expenses, there remained a surplus of $576,574.25. Out of this the following fixed charges were paid:

First. Annual payment to street railway company (to be paid each year until the expiration of the original franchise in 1914)	$82,080.00
Second. Interest and liquidation charges on street railway loan	140,666.72
Third. Depreciation and renewal fund	56,250.00
Fourth. Contribution to general administrative expenses of the city	16,816.93
	$295,813.65

From the remaining $280,760.60 the city contributed $15,805 toward the pension fund for employees, $4,057.50 toward the pen-

sion fund for orphans and widows of employees and $36,250 toward the repaving and widening of streets, leaving a net profit of $224,-648.10. This is by far the most favorable showing since the beginning of municipal operation, the net profits of the preceding years being as follows:

NET PROFITS.

1899	$85,921.65
1900	108,190.59
1901	126,677.25
1902	122,190.95

This exceptionally favorable showing was not due to any particularly favorable traffic conditions, but is traceable directly to careful and economical administrative methods.

During the period between 1899 and 1903 the cost of operation per car-mile[6] was reduced from 13½ to 8¾ cents. During the same period the percentage of gross receipts required for operating expenses was reduced from 68.29 per cent. to 54.9 per cent. This compares very favorably with the situation in the United States where the relation of operating expenses to gross income for all the electric lines is 57.3 per cent. The following tables will give a clearer idea of the efficiency of municipal management.

RECEIPTS 1899–1903.

Source of Income.	1899	1900	1901	1902	1903
Fares	747,829.99	882,616.70	864,619.39	985,880.20	1,072,505.24
Commutation Tickets	100,610.07	123,282.59	130,443.75	158,624.62	170,910.08
Forwarding Mail	.....	.....	7,763.58	7,800.97	7,857.65
Miscellaneous	8,285.73	14,642.93	16,676.43	15,036.22	28,073.61
Total	856,725.79	1,020,542.22	1,019,503.15	1,167,342.01	1,279,346.58
Receipts per car-mile	20 cents	19 cents	15¼ cents	15 cents	15 4-5 cents

EXPENDITURES 1899–1903.

Item.	1899	1900	1901	1902	1903
Total Operating Expenses	$581,667.57	$620,493.87	$633,257.31	$688,570.10	$702,772.57
Relation of operating Expenses to total receipts (in per cent)	68.29%	60.8%	56.6%	59%	54.9%
Operating Expenses per car-mile	13½ cts.	11½ cts.	8¾ cts.	9 cts.	8¾ cts.
Gross Profits	$270,058.21	$400,048.84	$486,245.84	$478,771.92	$576,574.25
Net Profits	85,921.65	106,190.59	126,677.25	122,190.95	224,647.50

[6] The term "car-mile" means the total cost of operating reduced to a unit standard; *i. e.*, the cost of operating each car over a distance of one mile.

Although the receipts per car mile have also declined, this has been due to circumstances which indicate improvement of service rather than decline of traffic. During the five years of municipal operation from 1898 to 1903 the city has constructed a number of new lines in relatively sparsely settled districts, from which no surplus can be expected for some years to come. Although they are certain ultimately to prove profitable, the city has had primarily in view the possibility of influencing the settlement of outlying districts.

We have already had occasion to examine the unfortunate financial situation of the Munich system, due in large part to the extraordinarily heavy payments which the city must make each year to the street railway company as indemnity for the cancelling of the unexpired franchise. The deficit for the fiscal year 1904-1905 amounted to $32,747.03, but this is not surprising when we stop to consider that the budget was burdened with the annuity payable to the street railway company, amounting to $230,804.76. Inasmuch as all the lines belonging to the city are being operated by the company and will continue to be so operated until 1907, it is impossible at present to draw any conclusions with reference to municipal operation.

In considering the municipal railway system of Cologne, it is necessary to distinguish between the distinctly urban and the suburban lines. During the first few years of municipal operation, especially in 1901 and 1902, the street railways of Cologne, as of all the cities of Germany, were affected by the general economic depression from which the country was suffering. The receipts were further reduced by the temporary disturbances of traffic caused by the change of equipment from horse power to electricity.

The fiscal year 1901-1902 showed a net loss of $12,145.54; in 1902-1903 there was a net profit of $21.51; and in 1903-1904 a net profit of $130,816.06. In considering this profit and loss account we must take into consideration that the city is compelled to pay to the street railway company an annuity of $314,319.15. During the last four years the city has been able steadily to reduce the operating expenses.

The city owns and operates three suburban lines, one to the neighboring town of Frechen, another to Königsforst, and a third to Ehrenfeld. Under the Prussian law any community operating railway lines occupies a legal position very similar to that of a

private corporation. It may seek franchises from neighboring communities for the operation of such lines and is held to the same measure of obligation as a private company. In 1903 the city of Cologne entered into a contract with the town of Frechen to take over the line constructed in 1893. Under the terms of the contract Frechen is to receive an annuity of $12,500, which is to be increased annually by $250 until it reaches $15,000. Cologne must furthermore pay into the treasury of Frechen one-third of

	1900–1901		1901–1902		1902–1903		1903–1904	
	Gross Receipts.	Per Car Mile Cts.	Gross Receipts.	Per Car Mile Cts.	Gross Receipts.	Per Car Mile Cts.	Gross Receipts.	Per Car Mile Cts.
Receipts	751,486.50	20 4-5	801,350.75	20	1,021,433.00	16 1-5	1,249,536.75	15 2-5
Operating Expenses	434,207.75	12	484,793.50	12	621,611.00	11 1-5	706,461.25	89-10
Surplus	317,278.75		316,557.25		299,822.00		543,075.50	
Relation of Operating Expenses to Gross Receipts (in per cent.)			60.50%		60.85%		56.54%	

the net profits and has agreed to equip the line with electricity with the least possible delay. The line is of considerable importance for freight as well as passenger traffic; in fact, since 1900 the income from freight traffic has been more than double that from passenger traffic. The city authorities of Cologne were anxious to acquire the line because of its importance to the industrial growth of the city rather than the possibilities of profit involved. During the first year of municipal operation after paying the annuity of $12,500 to the town of Frechen there remained a net profit of nearly $1,000.

The second of the Cologne suburban lines, viz: from Cologne to Königsforst, is the first section of a network of suburban lines on the right bank of the Rhine which the city has decided to build. As this line passes through three towns—Kalk, Vingst and Merheim—it was necesary first to enter into agreements with the local authorities of these towns. The agreements entered into are as follows:

First. In return for the use of its streets the town of Kalk is to receive an annuity depending on the net profits of the section running over its streets. It is provided, however, that in no case shall the annuity be less than $2,125 nor more than $6,750.

Second. The town of Vingst received a lump sum of $1,250 to be expended for certain street improvements, and in addition is to receive an annuity depending on the number of inhabitants, and graded as follows: 2½ cents per inhabitant per year as long as population remains under 10,000; 3¾ cents per inhabitant per year for population between 10,000 and 15,000; 5 cents per inhabitant per year for population between 15,000 and 19,999; 6¼ cents per inhabitant per year for population between 20,000 and 29,999; 7½ cents per inhabitant per year for population over 30,000.

Third. The town of Merheim granted the right to use one of its streets for $750, a sum sufficient to make a few minor repairs.

The third suburban line operated by the city is intended mainly for freight traffic. The city is doing everything in its power to encourage the establishment of new industries. The Cologne-Ehrenfeld line was acquired mainly with a view to improving the freight connection with the state railways.

The city of Nürnberg did not come into full possession of its street railway system until June 6, 1903. During the brief period of municipal management the city authorities have shown a degree of business capacity which promises to place the system in the front rank of the German street railways. As soon as the city obtained complete control of the situation, the construction of the new lines which the city had fruitlessly attempted to obtain from the street railway company was begun. Before the end of August two of the main lines were extended into outlying wards. The influence of the improved service in relieving the congestion in the older portions of the city was immediately apparent. Two new lines to suburban towns were also begun without delay. The following year (1904) the belt line encircling the entire city was completed through the construction of a section connecting the terminals of two existing lines.

The financial results of the first two years of municipal operation have been satisfactory. It must be remembered that the street railway account is burdened with the interest and liquidation charges on the loan contracted for the cancelling of the company's franchise. This means an annual outlay for thirty years of about $138,000. In spite of this fixed charge, the street railway department turned over to the general city treasury a net profit of $13,669.89 in 1903 and $38,263.91 in 1904. During the first year the expense per car mile was reduced from $13^1/_3$ cents to 12 cents. The percentage of total receipts expended for operating expenses was reduced from 48.7

to 47.2 per cent. As regards economy of management the city can easily hold its own when compared with its predecessor. The street railway accounts under the two forms of management give ample evidence of this fact.

(*b*) Fares.

The most difficult problem confronting the cities which have embarked upon the municipal operation of street railways has been the adjustment of fares. During the last five years this question has been in the foreground of public attention. Unfortunately, the purposes and policies which the city authorities had in mind at the time the street railways were taken over have had to be considerably modified owing to the stern necessity of avoiding a deficit. In almost every instance one of the considerations which was of no small influence in bringing popular sentiment to favor municipal ownership and operation, was the possibility of so adjusting fares as to subserve social as well as financial ends. It was constantly pointed out that with municipal operation, the city would be able so to adjust fares as to influence the migration from the densely populated central wards to the outlying districts. Unfortunately the movement for municipal operation came at a time of economic depression in Germany, which was also felt in the street railway traffic. The first attempts to readjust fares with a view to influencing the distribution of population were followed by a marked decline in gross receipts. These two circumstances were immediately associated as cause and effect and led most of the cities to return to the system of fares in force prior to the period of municipal management.

The system of fares in force in German cities may be divided into two broad classes:

First. The uniform rate under which the same fare is charged no matter what the length of the ride.

Second. The zone tariff, *i. e.,* a system under which the rate of fare increases with the length of the ride.

Prior to the period of municipal operation the zone tariff was practically universal. This system, although sound from the standpoint of the financial interests of the companies, had the serious inconvenience that it retarded the development of the suburban districts. In the agitation for municipal ownership much stress was laid

on the possibility of introducing a uniform fare under municipal ownership. Of all the cities that have tried this system, Nürnberg is the only one that has been able to retain it. Munich, Düsseldorf, Barmen and Königsberg have tried it but felt compelled, for financial reasons, to revert to the zone system.

The experience of Munich is particularly instructive. As soon as the lines became the property of the city a radical revision of the system of fares was undertaken. A uniform rate of 2½ cents was introduced for all distances within the limits of the older city; a maximum distance of six miles. With this fare the right to one free transfer was given. Beyond the old city limits the fare was five cents with one free transfer. We have already had occasion to point out the heavy financial obligations of the city toward the street railway company which, combined with the fact that at the time of the beginning of city ownership, the community was in the midst of a period of financial depression, account for at least a portion of the deficit of the first few years. The municipal authorities felt that the uniform fare was at least one of the causes of the unfavorable showing. A commission was appointed which recommended that the uniform fare be retained at 2½ cents for week days, but that on Sunday the fare be increased to 3¾ cents. It was furthermore recommended that commutation tickets be adjusted to the zone system. Monthly cards, valid for a distance not exceeding two miles, were to be sold for $1.25, while cards permitting of a three mile ride were to cost $1.87½. This plan was put into operation in July, 1903, but did not fulfil the expectations of increased income. The number of persons using the cars on Sundays dropped from 10,408,833 in 1902 to 6,933,450 in 1903. The people evidently were unwilling to pay the higher Sunday rate. The question was again referred to a commission and in 1904 the city council decided to abandon the uniform fare and to substitute therefor a zone tariff. On October 16, 1904, the new system went into effect. The lines were divided into sections called "units," each three-fifths of a mile in length. The rate of fare for each unit was fixed at 1¼ cents with a minimum fare of 2½ cents. The fare for the maximum distance was fixed at 6¼ cents. Free transfers on all lines are issued. In order to make the change more acceptable to the working classes it was provided that from May 1st to October 15th the fare prior to 7 a. m., no matter what the distance, should be

2½ cents, and from October 16th to April 30th the same fare should obtain prior to 7.30 a. m. Monthly commutation tickets valid for a specified "two unit" ride (1 1-5 miles) are sold for $1.50, for a "four unit" ride, $3.00. The holders of these cards may travel over these units as often as they desire. Monthly cards good for the entire system are sold for $3.75.

During the first nine months of the new system the financial results have been relatively satisfactory. The gross receipts during this period increased $16,156.60. Although the gross receipts were increased, the total number of passengers carried declined considerably. As compared with the nine months of the preceding year the decrease was nearly half a million (458,626). Frankfort has also a zone tariff system similar in some respects to the Munich system. The gradation of fares is as follows:

For 1⅕ miles or less	2½ cents
Over 1⅕ and less than 2⅒ miles	3¾ "
Over 2⅒ and less than 3 miles	5 "
For every ⅒ of a mile over 3 miles	1¼ "

Frankfort has done more than any other German city to encourage the migration of population to the suburban districts. In 1904 a special system of fares was introduced for apprentices, workingmen and artisans whose income is less than $500 per year. Cards for the six week days and entitling the holder to the single use of a section not exceeding one and four-fifth miles are issued for 7½ cents. These cards must be used before 7.30 a. m.; at least the ride must be begun before that hour. Weekly cards good for a morning ride before 7.30 and a return ride in the evening are issued for twenty cents. Monthly commutation cards for unlimited use of a section not exceeding one and fourth-fifth miles are also issued to workingmen for $1.25. The city of Mannheim, imbued with the same desire to favor the housing of the working classes in the outlying districts, has adopted a plan which has proved most successful. Workingmen's[7] tickets good for a two and one-tenth miles ride are sold for 1¼ cents, but these tickets can only be used from the suburban sections to the old city wall. A further ride must be paid at the regular rate.

In Bielefield special workingmen's cars are run during the early

[7] These tickets are only sold to persons whose income does not exceed $300 per year.

morning and evening hours. The fare is 1¼ cents no matter how long the ride (maximum ride five and three-twenty-fifth miles). In Mühlheim a. d. Rohr workingmen's monthly commutation tickets are issued for $1.00, good for the morning ride to and the evening ride from place of work.[8]

Cologne has recently introduced a new zone tariff system arranged as follows:

Fare for 1⁴/₅ miles	2½ cents
Fare for 3³/₅ miles	3¾ "
Fare for 5²/₅ miles	5 "
Fare over 5²/₅ miles	6¼ "

With every fare exceeding two and one-half cents a free transfer is issued. Four classes of tickets are sold:

First. For monthly tickets over the entire system, $3.25.

Second. Monthly tickets over definite sections of the lines are arranged as follows: The entire system is divided into eighty-one "unit sections." The charge for monthly tickets over three contiguous sections is $1.25, for five sections, $1.75; for seven sections, $2.00.

Third. In order to furnish workingmen with cheap transportation facilities, tickets good for use before 7 a. m. in summer and before 7.30 a. m. in winter are issued at the rate of six for seven and one-half cents.

Fourth. Tickets for school children are issued for one and one-quarter cents, good for any distance.

In Cologne, as in the other cities, holders of commutation tickets may use the lines as often as they wish. Nürnberg and Darmstadt are the only cities of any size which still retain the uniform fare in their municipal railway system. The fare is 2½ cents. In the issuance of commutation tickets Nürnberg has departed from the uniform rate. Monthly tickets for two mile sections are sold for $1.50; monthly tickets for the entire system cost $2.50. In Darmstadt the uniform fare of 2½ cents is only departed from on one line, on which the fare is 3¾ cents.

The experience of some of the other cities in which the street railways are under municipal management is worthy of attention. Duesseldorf took over the street railways and immediately introduced the uniform fare of 2½ cents with right to one free transfer, and 3¾ cents with right to two transfers. Monthly commutation tickets for the entire system were sold for $1.50. A special rate of $1.00 was made for school children. The first year of municipal

[8] Cf. Lindemann, op. cit. p. 273.

operation showed a deficit of $33,963. After careful consideration the city authorities decided to abandon the uniform fare and adopted a zone tariff. This seemed to have no immediate effect as the real cause of the deficit was the general economic depression. The attempt was then made to remedy the financial situation by diminishing the size of the zone unit. The increase in price, combined with the improvement in the industrial situation of the community placed the system on a paying basis.

In Barmen the uniform 2½ cent fare with free transfer was also introduced immediately after the municipalization of the street railways. Monthly commutation cards good for all portions of the system were issued at $1.25. The maximum length of ride without transfer was four and one-fifth miles. Under this system the street railway accounts showed a chronic deficit amounting to $220 in 1897, $9,849 in 1898, $5,312 in 1899, $3,729 in 1900 and $4,026 in 1901. In December, 1903, this system was replaced by a zone tariff under which the lines were divided into five zones of two and one-tenth miles each. The rate for each zone was fixed at 1¼ cents with a maximum fare of 2½ cents.

In Königsberg the uniform fare system was in force during the first years of municipal management. In April, 1903, the city authorities, in order to increase the receipts, introduced a combination of the uniform rate and zone tariff.[9] Within the limits of the city the uniform 2½ cent fare is retained, beyond the city limits 3¾ cents is charged.

Character of Service Under Municipal Management.

It requires but very brief observation of conditions in German cities to be forced to the conclusion that "rapid transit" in the sense in which that term is used in American cities is unknown in Germany. Its absence has added greatly to the burdens of the municipal authorities, especially in increasing the difficulties of the housing and other sanitary problems. The failure to develop a system of rapid transit is not traceable to the shortcomings of municipal management. In fact, under municipal management conditions have undergone marked improvement.

[9] Cf. Lindemann. Wirtschaftspflege in der Deutschen Staedteverwaltung," Vol. ii p. 266.

The marked difference between American and Continental cities in the efficiency of the service is traceable directly to the conditions of business life. Until comparatively recent years there was no definite line of demarcation between the business and residence sections of German cities. This condition is directly traceable to the industrial characteristics of the mediæval city in which the artisan's workshop and residence were in the same building. Another factor of considerable importance is the relatively small area of the German as compared with the American cities. The incorporation of suburban districts which has taken place within the last ten years has greatly diminished the contrast, but the standards of traffic have not as yet caught up with the changed conditions. The system of urban transportation in Germany fails to meet the requirements of the great industrial centers that have developed in recent years. The street railway system has not advanced in harmony with the changes in urban conditions.

In most of the German cities the day cars are run at intervals of from four to eight minutes. On some of the most important lines the interval is reduced to three minutes, but more frequent traffic is unknown. After midnight the service is usually suspended until 5 a. m. The speed of the cars is from one-third to one-half less than in the United States.

It is true that greater care is taken of the comfort of passengers, the number of persons permitted in each car being carefully designated. Nevertheless, this attention to detail is hardly counterbalanced by the absence of a well developed system of rapid communication which, by favoring a more equable distribution of population, would considerably simplify the most pressing municipal problems.

Labor Conditions Under Municipal Management.

One of the most notable achievements of municipal operation in Germany has been the betterment of labor conditions. The German cities undertook without delay to readjust the hours of labor so as to bring them within the ten-hour limit and so to arrange the schedules that this ten-hour service should be as continuous as possible. This constituted a great improvement over the older schedules under which the employees worked three and four hours at a time and

were thus compelled to be on duty considerably beyond the ten-hour period. Compared with the United States the wages seem surprisingly low. In the larger cities of Germany the average wage of motormen is eighty cents per day, of conductors, seventy-five cents per day. In Cologne, conductors receive from $22.50 to $30 per month, motormen from $29.50 to $37.50, depending on the length of service. In case of disability arising from any cause whatsoever, an annuity of $175 is assured during the period of such disability. Munich pays the motormen and conductors seventy-five cents per day, which is gradually increased until, after five years of service, the maximum rate of $1.25 per day is reached. This represents the wage condition in most of the cities in which the street railways are under municipal management. The hours of labor in all the cities are adjusted on a ten-hour scale.

In judging this comparatively low wage scale, it must be borne in mind that the "fee" system still prevails in most of the German cities. Many of the passengers in paying their fare give to the conductors five pfennigs (1¼ cents). The motorman is entitled to a certain percentage of the fees received by the conductor—usually about 35 per cent. In this way motormen and conductors receive from thirty to forty cents per day in addition to their regular wage.

Even with these additions the wage seems low compared with American conditions. The results of a special inquiry undertaken by the Census Bureau in 1902 show that 14 per cent. of the conductors on electric surface railways in cities of over 100,000 receive from $1.75 to $1.99 per day, 62.1 per cent. receive from $2.00 to $2.24, and 13.6 per cent. receive from $2.25 to $2.49. Of the motormen, 12.9 per cent. receive $1.75 to $1.99, 59.8 per cent. receive from $2.00 to $2.24 and 19.8 per cent. receive from $2.25 to $2.49. Although, in Germany, the wage scale of street railway employees under municipal and private management is practically the same, there is considerable difference in the treatment of employees in case of sickness, disability or death. In all the German cities special funds have been established, towards which the city treasury contributes each year a sum equal to a certain percentage of the employees' salaries. Cologne and two or three of the other cities have even undertaken to build dwellings for their employees.

Comparison and Conclusion.

Any attempt to determine the success or failure of municipal management of street railways in Germany must be based upon a comparison of public with private management. A careful review of the experience of German cities will show that private control has been singularly unprogressive. This has been due, in part at least, to the onerous conditions under which the original franchise grants were made. The companies did not feel justified in incurring the risks involved in making improvements on a large scale or in extending the service into the outlying districts of the city. Impressed with the lessons of this experience we find the more recent franchise grants specifying minutely the streets over which the service must be extended.

The relation between city and street railway corporations in Germany seems to be exactly the reverse of that in the United States. Here the companies are constantly seeking the right to extend their lines into new districts, whereas in Germany the municipal authorities are engaged in a constant struggle to secure from the companies an extension of the service. This difference in the attitude of the companies toward the extension of the service is due in part to the broader spirit of enterprise of American corporations, but the main reason is to be found in the fact that the German companies were aware that every new grant from the city would be accompanied by a demand for such a percentage of gross receipts as would considerably diminish their dividends. It is not surprising, therefore, that the German companies have shown a conservatism which is usually interpreted as lack of enterprise and inability to discount the future.

We have seen that the movement toward municipalization was largely determined by the antagonism between the cities and the street railway companies, growing out of the desire of the city to secure a more rapid extension of the service. If at the time they applied for the right to substitute electricity for horse power, the companies had more fully appreciated the value of the privilege, it is likely that they would have been more willing to accede to the wishes of the city authorities.

The process of municipalization was greatly facilitated by the fact that under the German law the accounts of public service

corporations are subjected to careful public control. The amount expended by each company for the construction and equipment of the lines is easily ascertainable. Every dollar of capital represents actual investment. The total capitalization of the companies whose lines have been recently municipalized is as follows:

	Total capitalization.	Length of line, including double track railways.	Capitalization per mile of road.
Cologne Street Railway Co...	$1,368,625	50.5	$27,101.48
Nürnberg Street Railway Co.	1,570,000	29	54,138.28
Munich	1,500,000	63	23,809.52

The net capital liabilities per mile of track of the electric surface railways of the United States is $92,114. In the cities with a population of 500,000 and over, the net capitalization per mile of track reaches the enormous sum of $182,775. In New York City[10] the capitalization per mile of track is $259,542; in Chicago, $109,537; in Philadelphia, $165,085; in St. Louis, $198,647; in Boston, $97,353; in Washington, $186,416; in Pittsburgh, $185,170, and in San Francisco, $140,985.

The influence of this wide difference in capitalization on the expense account of street railway lines under American and European conditions is readily apparent. The percentage of total income expended by American companies for interest and liquidation charges and for the payment of guaranteed dividends to subsidiary companies is considerably larger than those of the German companies. The following table presents some data relating to Frankfort, Cologne and Munich. Accurate figures for the larger American companies are not obtainable:

	Interest and liquidation charges.	Percentage of total expenditure.
Frankfort	$112,066.04	10.6
Cologne	204,000.00	17.0
Nürnberg	138,063.00	28.7

Any attempt to review the results of municipal ownership would be incomplete without some reference to the effect on the civic life

[10] The net capitalization per mile of the 19,874 miles of track (131.13 operated by conduit trolley) controlled by the New York Interurban Company is $494,399.

of the communities under consideration. The introduction of electricity as a motive power greatly increased the possibilities of profit, and led the companies to exert the strongest possible pressure to secure a renewal of their franchises combined with the right to use electrical power. In the struggle to secure these new rights one can detect the first traces of the insidious forms of corruption which have done so much to undermine the civic life of American communities. In a number of instances, members of the council were retained as attorneys for street railway companies, and in one case an influential member of the "Magistrat" of one of the larger cities was made a director of a street railway company at a time when the company was seeking important privileges.

On the other hand, in those cities which have municipalized their street railway system, there is no indication of corruption traceable to the large increase in the number of city employees. The civil service system is so highly organized that the danger of political influence is reduced to a minimum.

Viewing the situation broadly, it may fairly be said that the municipalization of the street railways has protected these cities from the dangers involved in the desire of private corporations to secure control of local administration for the purpose of securing special privileges. In 1890 but few of the companies were declaring large dividends. In fact, the large return which they were compelled to make for the franchises under which they were operating grants made it necessary to exercise the greatest economy in order to make a fair profit on the capital actually invested. The new franchises, in offering to the companies far larger possibilities of profit, correspondingly increased the temptation to secure control of local policy. It is too early to predict whether the cities in which the street railways are still in the hands of private companies will be able to withstand the temptations which now beset them.

Are these lessons of German experience of any real value to our American municipalities? The answer to this question is a matter of far more than theoretical importance. Partly because of the feeling of irritation aroused by the corrupting influence of public service corporations on the civic life of American communities, but mainly owing to a general awakening to the possibilities of improved service in urban transportation and in gas and electric light service,

the public mind is anxiously turning to municipal ownership and operation as a possible solution. In fact, indications are not lacking that we are drifting toward a fetichism of municipal operation which is likely to work great harm. One of the safeguards against this danger will be a proper estimate of the value of foreign experience.

The success of municipal operation in Germany means that the people are enjoying better service than under private management. The causes of the failure of private operation to meet modern requirements are readily ascertainable, and as we have seen these causes do not exist in the United States. In other words, the conditions for successful private management are far more favorable in the United States than in Germany.

Furthermore, as regards urban transportation, the requirements of public opinion as to the standard of service are immeasurably higher in the United States than in Germany. Notwithstanding our prodigality of public franchises, the American public has always set a relatively high standard as regards the character of the transportation service. We have been willing to pay a high, at times an exorbitant price, but there has been a corresponding demand for good service. No American community of any size would to-day tolerate the conditions of urban transit that obtain in most German municipalities. The present unrest of American public opinion is due to the fact that the requirements as to the standard of service are being raised with such rapidity that the over-capitalized corporations are unable to maintain the pace to which they have been forced during recent years.

Although the arguments in favor of municipal operation are being grouped about the possibility of large financial returns to the city treasury, it is not likely that this argument will stir the American people to any drastic measures. To secure united action, appeal must be made to the desire for improved service. The fact that municipal operation has given improved service in Germany does not necessarily mean that it will produce the same results in the United States. Whatever may be said against American street railway corporations, no one will deny that they have given far better service than the German companies. It is true that they have been given greater freedom in the development of the service and that the public demands, especially as regards rapidity of service,

have been considerably higher than in Germany. Be this as it may, it is important to bear in mind that municipal operation in the United States would have to bear comparison with a higher standard of service than in Germany. Any attempt to apply the lessons of German experience which does not keep these differences in mind, is certain to be misleading rather than helpful.

TRANSPORTATION FACILITIES AND STREET RAILWAY TRAFFIC IN LONDON

By Lynden Macassey, M. A., LL. D.,
Secretary of the Royal Commission on London Traffic.

The name "London" is applied indiscriminately to various local government, judicial, and geographical areas. There is the "Administrative County of London," centrally governed by the elective London County Council, which controls certain matters of local government as sewerage, new buildings, education, etc. Comprised in the "Administrative County" is the City of London, governed by the Corporation of London, whose district is practically independent of the County Council except in a few matters. The rest of the "Administrative County," excluding the city, called "the County of London," is divided into 28 Metropolitan Boroughs, each with an elective borough council, which are the local government authorities for all purposes, *e. g.*, street maintenance, scavenging, lighting, etc., not appertaining to the County Council, and which in many matters are controlled by the County Council.

The next greater area is "Greater London"—the district under the jurisdiction of the Metropolitan Police (a state force), comprising roughly every parish, the whole of which is within fifteen miles, and any part of which is within twelve miles, of Charing Cross, excluding the City of London, which has its own municipal police force. "Greater London" includes the Administrative County of London, excluding the City, and stretches beyond into five adjoining administrative counties, viz.: Middlesex, Surrey, Kent, Essex, Hertford, each county with a central county council and entirely subdivided into various subsidiary and practically independent units of local government, boroughs, urban districts, rural districts—each with an elective authority. The portion of "Greater London" lying beyond the Administrative County of London situated in the other counties is geographically known as "Extra" or "Outer

London." For transportation purposes "Greater London" should be the geographical area for consideration. Such is the decision of the Royal Commission on London Traffic, which has just published eight large volumes of original statistics and investigations on every phase of traffic on the railroads, street railways, and streets in "Greater London."

The Transportation Authorities.

London depends for locomotion on trunk-line railroads and their suburban sections, on underground railroads, "subway" and "tube," on street railways and on omnibuses and cabs.

Railroads, surface and underground, can only be constructed under a private and special Act of Parliament. The consent of the local authorities does not enter into the matter. They can oppose and present their case before the committee in the House of Commons, and also before the committee in the House of Lords, to which the bill is referred. Street railways are authorized by virtue of (1) a special and private Act; (2) a Provisional Order granted for the purpose by the (State) Board of Trade, and afterwards confirmed by Parliament; but no Street Railway Act or Provisional Order is allowed to proceed without the consent of the local authorities, who have thus a power of "veto" in addition to rights of opposition in Parliament. Street railways, or local railroads, can also be constructed outside the Administrative County of London under "Light Railway Orders" granted by the (State) Light Railway Commission, a procedure of recent growth over which local authorities have no "veto."

As a result, all the railroads of "Greater London" are in private hands. When constructed under an Act or Provisional Order street railways are purchasable by the local authorities at a date specified in such Act or Order. This is not the case when constructed under a Light Railway Order. In the Administrative County of London, the London County Council has accordingly purchased, or arranged to purchase and operate all street railways, and shortly none will be in private hands. In "Extra London" the local authorities have similar powers, but have not yet cared, or been in a position, to exercise them. All local authorities, with few exceptions, have, along with private promoters, power, which they

exercise, to promote Bills or Orders for the construction of new street railways, save that in the Administrative County of London, the London County Council alone, with the private promoter, has the power, subject to the other local authorities' "veto." Thus the street railways of "Greater London" are partly municipal, partly municipally owned and privately operated, and partly privately owned and operated. Omnibuses are all in private hands, and may be put on any route without special authority, subject to the licensing of the "bus," the driver, and conductor, by the police.

The following are the chief statistics bearing on traffic in Greater London, as contained in the report of the Royal Commission:

Statistics of Area Population and Traffic.

Area.	Acres of land and inland water.
The City of London	673
The County of London	74,144
The Administrative County of London	74,817
"Extra London"	368,602
"Greater London"	443,419

Resident Night Population.

Year of Census.	Administrative County of London.		"Extra" London		Total "Greater London."	
	Population.	Increase per cent.	Population.	Increase per cent.	Population.	Increase per cent.
1801	959,310		155,334		1,114,644	
1811	1,139,355	18.8	184,544	18.8	1,323,899	18.8
1851	2,363,341	21.2	317,594	11.0	2,680,935	
1861	2,808,494	18.8	414,226	30.4	3,222,720	20.2
1891	4,228,317	10.4	1,405,489	50.1	5,633,806	
1901	4,536,541	7.3	2,044,861	45.5	6,581,402	16.8

The feature of the population growth is the rapid rate of increase in "Extra London," partly natural, mostly migratory, occasioning an immense demand for suburban traveling facilities. In the central districts of London population is stationary or decreasing. For instance in the City of London:

	City of London. Population.
1861	112,063
1871	74,897
1881	50,652
1891	37,694
1901	26,923

although 359,940 persons spend the day there, and 1,250,000 persons and 100,000 vehicles enter and leave the city daily.

The following figures show the annual amount of intra-urban travel:

	All Local Railroads.	Street Railways.	Two Chief Omnibus Companies.	Total.	Rides Per Capita.
1880	133,877,485	64,817,361	57,722,231	256,417,077	54.8
1890	167,299,200	191,041,904	148,531,099	506,872,203	91.5
1900	214,537,095	340,203,066	264,503,868	819,244,029	126.3
1902	273,767,648	358,119,754	279,466,557	911,353,959	136.0

The only railroads included are the lines owned or used by the purely local East London, Metropolitan, Metropolitan District, North London, Central London, City and South London, and Waterloo and City Companies, for which lines statistics are available. Trunk railroads and their suburban sections are omitted, and also the smaller omnibus companies. Last year, with the co-operation of the transportation authorities, a special count was made for the Royal Commission of the travel on all local means of conveyance,—including the recently constructed Whitechapel and Bow, Great Northern and City Roads,—excluding trunk railroads. The figures are:

Railroads (local, not trunk)	301,000,000
Street Railways	405,000,000
Omnibuses	458,000,000
	1,164,000,000

These figures on an assumed present-existing population of 6,850,000 in "Greater London," represent 170 rides per capita per annum.

In addition, certain of the trunk line companies mentioned above have trackage rights over sections of other companies' lines.

There are also the following connecting lines operated jointly by the various companies having terminals in London: East London Joint; Hammersmith and City Joint; London and India Docks; Metropolitan—Widened Lines; North and South Western Junction; Tottenham and Hampstead; Totteham and Forest Gate; Whitechapel and Bow.

Electric Railroads.

In addition to the above trunk roads there are the following local railroads existing and in course of construction:

EXISTING.

	Mileage and by Passenger Trains.		Passengers Carried 1904.
	Route.	Single Track.	
(A) Electric subway and in open			
Metropolitan	8½	17	.....
Metropolitan District	25	50	51,000,000
Metropolitan District joint lines Metropolitan and Metropolitan District	2	4	1,250,000
(B) Electric "Tube"			
Central London	6	12	45,000,000
City & South London	6	12	17,500,000
Great Northern & City	3½	7	8,000,000
Waterloo & City	1½	3	4,500,000

IN COURSE OF CONSTRUCTION.

(*B*) *Electric "Tube."*	Length Miles.
Baker Street and Waterloo	5½
Charing Cross, Euston and Hampstead	8
Great Northern, Piccadilly and Brompton	8¼
Metropolitan District Extension (Hammersmith to Glidden Road)	½

AUTHORIZED, BUT NOT YET BUILT.

(*B*) Great Northern, Piccadilly and Brompton (Holborn to Strand)	¼
(*B*) Metropolitan District (Earl's Court to Mansion House)	4¾
(*B*) City and Brixton (Kennington Park to Brixton)	1½
(*A*) Edgware and Hampstead	4½
(*B*) North West London	4
(*A* and *B*) North East London	10
(*A*) Watford and Edgware	6

Omnibuses.

There are 159 omnibus routes or separate lines of omnibuses in the Administrative County of London, and 41 routes in "Extra London," and of the former 115 pass through the central area. The routes in the Administrative County range in length from 8.8 miles to .7 miles, and aggregate 757 miles, using a total street length of 242 miles.

The following is an approximate division of the 242 miles of streets according to the amount of omnibus traffic:

Number of omnibuses per hour in both directions (during hours of full service).	Length of streets in the administrative county divided according to amount of omnibus traffic Miles.
480 and upwards (intervals of one-fourth of a minute or less each way)	.57
480 to 360 (intervals of one-fourth to one-third of a minute each way).	4.43
360 to 240 (intervals of one-third to one-half of a minute each way)..	6.47
240 to 120 (intervals from one-half of a minute to one minute each way)	14.64
Less than 120 (intervals of over one minute each way).....	215.89
	242.0

In the principal streets the omnibus traffic forms a very considerable part of the total vehicular traffic. In the Strand, out of a total of 11,000 vehicles per day, 36 per cent. are omnibuses; in Holborn, out of 9,400 31 per cent. are omnibuses, and at Piccadilly, out of 15,000, 30 per cent. are omnibuses.

THE MOVEMENT FOR MUNICIPAL OWNERSHIP IN CHICAGO

By Hugo S. Grosser,
City Statistician of Chicago.

The movement for municipal ownership in Chicago, although but recently designated by the most prominent merchant of the city as "a fad and a craze that will die out and not be heard of again within five years," is as old, almost, as the city itself. According to the records, the question of municipal ownership was first voted upon in Chicago in 1851, and the point at issue at that time was the acquisition and operation by the municipality of the water works. Of the four thousand four hundred and forty-five persons voting at that time, two thousand six hundred and eighty-eight voted for, and five hundred and thirteen against the measure, while one thousand two hundred and forty-four were silent on the question. Chicago as a result of that election acquired its water works, and has owned and operated them ever since. That the public mind, even in the early days of the city's life, considered the possibility of extending municipal ownership to other public utilities, and particularly to the street railway lines, may be seen from the fact that when the city council of Chicago in 1858 granted the first street railway ordinance to a number of gentlemen, the predecessors of the Chicago City Railway Company, it contained a provision for the purchase of the street railway property by the city.

Again in 1887, the city of Chicago without much ado, and without creating a bonded debt, erected its first municipal lighting plant, which, during the past eighteen years has been continually enlarged and extended, and has become one of the largest electric street lighting plants in the world. Thus not only the principle, but also the practical value of municipal ownership of public utilities was well known to the citizens of Chicago for many years.

There was little cause to discuss the question of municipal ownership for several decades, but the time came when the people were aroused as never before, and for a good reason, for one of the boldest attempts ever known in legislative history was made by the street railway interests to obtain, in a roundabout way, an extension of their grants for a further period of fifty years. In 1886 a syndicate headed by Charles T. Yerkes, organized the North Chicago Street Railroad Company and the West Chicago Street Railroad Company, which took over the leases of the street railways and the franchise rights of the North Chicago City Railway Company and the Chicago West Division Railway Company for nine hundred and ninety-nine years, guaranteeing to the retiring companies annual dividends of 30 and 35 per cent. respectively. The new companies, after they had assumed the operation of the railways, received in their own right, from time to time, from the city numerous grants for additional streets in the north and west divisions for twenty years, which, in fact, constituted a very large part of the mileage of the respective lines of these companies. In 1897, through the efforts of Mr. Yerkes, the senate of the State of Illinois passed a law, popularly known as the "Humphrey Bill," which provided that any street railway ordinances heretofore granted to any one were extended for the period of fifty years from and after the first Tuesday in September, 1897. Although Mr. Yerkes personally appeared before the house committee to whom the bill was referred and urged the passage of it, the house finally rejected it, but passed a substitute, afterwards amended and passed by the senate, popularly known as the "Allen Law," which conferred upon the city the power to extend street railway ordinances for fifty years, instead of twenty years, as provided by the cities and villages act of 1874. The people of Chicago were up in arms, and when in 1898 Mr. Yerkes, on behalf of his two companies, tried to get the city council to pass an ordinance extending the time for the operation of the lines for fifty years, genuine alarm was felt everywhere, as, considering the composition of the city council at that time, well-grounded fears were entertained that the people's rights might be sold to the street railway corporations in spite of the probable veto of Carter H. Harrison, the new mayor, who had been elected not quite a year before. Indignation meetings were held everywhere; frequent threats of hanging the aldermen who would dare to vote for the propositions were

heard, and so stoutly did the people fight in their own behalf that the council did not dare to pass the ordinances. Not satisfied with that result, the agitation was kept up until in 1899 the legislature repealed the so-called "Allen Law," and in lieu thereof passed a law corresponding to the old law limiting franchise grants to twenty years.

As soon as, through the "Humphrey Bill," the people of Chicago were challenged to protect their rights in the streets of the city, the council appointed a committee to make an exhaustive investigation of the entire matter. This committee, known as the Harlan Committee, reported to the council in March, 1898. In this report were set forth all the facts as they existed at that time in regard to the street railways, and for the first time the public came into possession of reliable and helpful information. Aroused by the bold efforts of Yerkes, and fortified by the knowledge that most of the franchises of the old companies were about to expire, the public there and then became firmly determined that no further franchises should be given to these companies. They realized how utterly inadequate the street car service had been for years—how they had been subjected to the most abominable, yes, indecent, treatment—how the purpose of accommodating the people had been entirely lost sight of by the companies, whose only aim for years seemed to have been to procure the largest number of nickels for the least amount of service. The cause of municipal ownership received an impetus which since then has grown stronger and stronger; which, in spite of all the machinations on the part of the traction interests, could not be downed, and which, to judge from the present attitude of the people, will not down until it has been brought to a successful realization. It might be truthfully said that Mr. Yerkes is the father of the present municipal ownership movement, for, had he been wise enough to introduce proper transportation service and be modest or at least moderate in his demands for franchise renewals, it may justly be assumed that the companies would have received an extension of their grants, and that consequently there would have been no street railway question in Chicago.

As soon as the street railway interests saw their attempt to grab the streets of Chicago for another half century foiled in so pronounced a manner, they at once began to raise the cry of their rights under the so-called "Ninety-nine Year Act," under which they

claimed their franchise rights extended until 1958 and 1960 respectively. This ninety-nine year act playing so great a part in the present controversy is nothing but a mere legislative enactment, passed in 1865, amending an act of February, 1859, which incorporated the Chicago City Railway Company and the North Chicago City Railway Company, and likewise amending an act of February, 1861, which incorporated the Chicago West Division Railway Company. Under this act the corporate life of these three companies was extended from twenty-five to ninety-nine years, and further contained the following amendment:

> "And any and all acts or deeds of transfer of rights, privileges or franchises, between the corporations in said several acts named, or any two of them, and all contracts, stipulations, licenses and undertakings, made, entered into or given, and as made or amended by and between the said Common Council and any one or more of the said corporations, respecting the location, use or exclusion of railways in or upon the streets, or any of them, of said city, shall be deemed and held and continued in force during the life hereof, as valid and effectual to all intents and purposes as if made a part, and the same are hereby made a part of said several acts."

The claim of the companies under this amendatory act, passed over the veto of the then governor, Oglesby, in spite of great public opposition, has never been adjudicated, has always been disputed by the city, and is now pending in the United States Supreme Court.

In the light of the following events it seems as though Mr. Yerkes, no doubt aware of the weakness of his position, must have had some very deep and mysterious purpose in thus setting up these proud claims, and this became evident when in 1899 he managed to organize the Chicago Union Traction Company, as the successor of his two former companies. These leased all their property rights, including their leasehold interests, privileges, franchises, etc., to the Chicago Union Traction Company, which latter undertook and agreed to assume and pay the floating indebtedness of the former corporations, interest on the bonded indebtedness, aggregating over twenty-five million dollars, and dividends to the stockholders of the five underlying corporations to the amount of one million six hundred and thirty thousand one hundred and sixty-three dollars annually. After Mr. Yerkes had succeeded in floating this new enterprise, out of which he is reputed to have drawn more than ten million dollars, he disappeared from the field of action to build his

"two-penny tubes" in London, leaving to the syndicate that succeeded him the heritage of the legal battle that has already consumed many years.

Chicago was on the *qui vive*. In December, 1899, the city council created the Street Railway Commision, with directions to prepare and submit to the legislature a comprehensive bill for new street railway legislation. In his annual message of December, 1899, Mayor Harrison, who in the spring of the year had been re-elected under the slogan, "The streets of Chicago belong to the people," called attention to the five points which he thought must be considered in connection with any extension of franchises to any existing street railway companies. These five points were:

First. Compensation based upon percentage of gross receipts;

Second. A reduction of fare during the crowded hours of the day;

Third. A betterment of conditions in the accommodation of the public;

Fourth. A proposition for municipal ownership of the lines at the expiration of the grant; and

Fifth. The requirement that before any ordinance granting an extension of franchises shall become operative it shall first be submitted to a direct vote of the people and receive popular endorsement.

The Street Railway Commission prepared and submitted to the legislature a comprehensive plan for new street railway legislation, and in their report dwelt upon several points to be observed before any franchises were to be extended. It maintained that the city should possess the power to own and operate street railways; that to the council there should be reserved broad powers of control of the street railway business; that the people should be given a direct voice through the referendum in the settlement of the most important questions of street railway policy: that the law should forbid over-capitalization; and that when any further grants of privileges from the city are accorded to the companies, they should be required, as a consideration of such grant, to renounce any claim of rights under the ninety-nine year act. In April, 1901, Carter Harrison, under the old battlecry, was elected for the third time.

In May of the same year the city council created a Committee on Local Transportation to deal with the street railway problem.

This committee, in December, 1901, reported to the council an outline ordinance for the proposed extension of franchises, but the companies for some time had ceased to negotiate with the city. In this report the committee said:

"The immediate municipalization of the street railways of Chicago as a practical proposition most persons will readily admit is out of the question."

and further:

"But the public is greatly interested in the early improvement of Chicago's belated and inadequate transportation facilities, and to that end it should be prepared to consider the terms of an early settlement of the general franchise question, in so far as a settlement may be an important element in leading to improvement of service."

Meanwhile a great deal of pressure had been brought upon the council and the mayor to "settle" the street car question, and it was stated by representative people that the overwhelming sentiment of the people was that the question should be settled right and soon. The Citizens' Association, the Civic Federation, and the Real Estate Board, as well as the press in general, emphatically were opposed to anything in the nature of delay. This finally caused Mayor Harrison, on January 6, 1902, to send a message to the council outlining the provisions of a street railway franchise renewal ordinance, in which, in order to meet the claim of the committee that a new franchise was essential to the obtaining of a satisfactory service, he stated:

"The general police power of the city is sufficient to give to the people the relief demanded." In this message he reiterated the points he conceived to be fundamental in any settlement. In addition to that, he said:

"For my part, I regard myself as under a pledge to the people to do all in my official and individual power to bring about the possibility of municipal ownership. The question with me, then, is: Do the people desire municipal ownership? The answer to this question will not be received by me from the owners of street car securities, nor from the all too interested precincts of the stock exchange, nor from that class of prominent citizens who regard a public franchise as personal spoil and loot, nor from that portion of the press which takes its editorial coloring from these classes of citizens."

Further on, he pointed out that at the time there was no authority for the city to own and operate its street railways, and that if

municipal ownership is to be obtained, the passage of enabling legislation must be a condition precedent to the granting of the desired extensions. In March, 1902, the city council, by resolutions, invited the street railway companies to enter into negotiations for renewal franchises.

The advocates of municipal ownership had not remained idle during all this time. New leagues and associations sprung up in all quarters of the city, taking up the fight, and in the aldermanic election in April, 1902, under the Public Policy Act, through their efforts, there was submitted to the people the question of municipal ownership of street railways. At that election one hundred and forty-two thousand eight hundred and twenty-six voted in favor of municipal ownership, and only twenty-seven thousand nine hundred and ninety voted against it.

From then on, every effort was bent to secure from the legislature that was to meet in January, 1903, the necessary legislation authorizing the city to own and operate street railways. Within two weeks after the election, the council passed an order authorizing and instructing the mayor to "appoint a special committee of five aldermen and five citizens to take steps to present the necessary bills to the legislature and to do everything possible to carry out the will of the people so decisively expressed at the recent election."

A committee appointed by the mayor in compliance with the order, made a report in December, 1902, expressing the desirability of municipal ownership in Chicago, and submitted several bills which were approved by the council and in turn submitted to the General Assembly of Illinois in February, 1903. These bills were pending in the legislature when another mayoralty election was at hand. The mayor being a candidate for re-election, appointed a very large committee, consisting of prominent citizens of both parties, including the Republican candidate for mayor, the late Mr. Graeme M. Stewart, to advocate the enactment of these laws. The legislature being overwhelmingly Republican, great pressure was brought upon Mr. Stewart and his friends to induce the legislature to pass the desired laws. Well knowing the temper of the people, and fearing that a failure to pass the bills might hurt the chances of the Republican candidate, the delegates unanimously worked for their passage. There was considerable delay, and when election day came the bills were still held in abeyance. Mr. Harrison was elected for a fourth

time, but so strong became the general pressure that in May, 1903, the legislature of Illinois passed the "Act to authorize cities to acquire, construct, own, operate and lease street railways, and to provide the means therefor," popularly known as the "Mueller Law." It had been hoped that the act would have been passed before the election so it could be submitted to popular vote for approval there and then, as under the terms of the law this was necessary before it would be in force.

In October, 1903, the council passed an ordinance which provided for the submission of the act to popular vote at the election of April 5, 1904, to determine whether it should become operative in Chicago under its terms. At that election the act was approved by the people by a vote of one hundred and fifty-three thousand two hundred and twenty-three against thirty thousand two hundred and seventy-nine; and through the efforts of the Referendum League, the following two questions were submitted at the same election:

First. "Shall the city, upon the adoption of the Mueller law, proceed without delay to acquire ownership of the street railways under the powers conferred by the Mueller law?"

The vote was one hundred and twenty-one thousand nine hundred and fifty-seven for and fifty thousand eight hundred and seven against.

Second. "Shall the city council, instead of granting any franchises, proceed at once, under the city's police powers and other existing laws, to license the street railway companies until municipal ownership can be secured and compel them to give satisfactory service?"

The vote was one hundred and twenty thousand eight hundred and sixty-three for, and forty-eight thousand two hundred against.

Such a decisive vote clearly showed the will of the people, and the city having obtained the authority to own and operate its street railways, there seemed to be smooth sailing ahead for the cause of municipal ownership; but what a delusion! The difficulties were greater than ever, and the prospect for the final settlement of the long drawn out and exceedingly tiresome traction question looked gloomy, indeed. While in the spring of 1903 the Mueller bill was on its passage the city experienced a distinct shock when, without warning, the Union Traction Company went into the hands of a receiver. It seemed impossible that such a profitable enterprise should be

forced into bankruptcy, and it was generally believed that the astounding move was merely a subterfuge by which the Union Traction Company, passing under the control of the federal court, could, and actually did escape any and all interference with its service on the part of the city. Through this move, furthermore, all negotiations for franchise extensions between the Union Traction Company and the city were broken off, and the city authorities for some time dealt with the City Railway Company only—the one covering the transportation service on the great South Side of the city.

Numerous petitions, resolutions, orders and ordinances were introduced in the city council ordering the Committee on Local Transportation to cease negotiations with the street railway companies,—providing for all kinds of improvements in the service—for licensing street railways, etc. These were all referred to the Committee on Local Transportation, where they were most conscientiously pigeon-holed, and the committee continued its negotiations until in November, 1903, a sub-committee reported for the consideration of the entire committee a tentative ordinance for an extension of the Chicago City Railway Company's franchise. The ordinance, according to the report, was "complete except as to the question of compensation." That question proved to be the rock on which the extension ship finally foundered, as the company refused to accede to the demands of the council in this respect, and when the ordinance was at last, in August, 1904, reported out, it was amended, referred back to the committee, again amended, re-referred, until, as a new tentative ordinance it was re-submitted to the council in March, 1905. Its consideration was postponed until after the spring election, and shortly thereafter it was placed on file.

The people became very impatient with these negotiations, especially when it was discovered that the committee as well as the then mayor would favor a franchise extension under proper safeguards, and with a provision for ultimate municipal ownership. That was not what was wanted, and the cry for immediate municipal ownership was raised. The people at large seemed to be convinced that that would be an easy matter to obtain, and the politicians were shrewd enough to see that they could not disregard this immensely popular movement, and some of them were very loud in their professions of being genuine, dyed-in-the-wool municipal ownership men.

Another mayoralty election was at hand. The four-times mayor, Carter H. Harrison, had absolutely refused to be a candidate for the fifth time, and both parties scoured the city for the most available man that might be successful. The Republicans nominated John M. Harlan in obedience to the demands of certain interests, although eight years before he had been an independent candidate for the mayoralty, and had thereby helped to defeat the regular Republican candidate. There can be no doubt but that Mr. Harlan was a popular candidate, but the Republican platform equivocated on the question of municipal ownership, and the candidate himself in the course of the campaign changed his own position in the matter so often that finally no one knew where Mr. Harlan really stood. The Democrats, on the other hand, had a candidate of a different calibre. His nomination was the final result of an absolute and firm demand on the part of the people. For years he had been known as an absolutely sincere and honest advocate of municipal ownership; as a judge on the bench for fourteen years he had frequently shown his predilection for the common people, so that many weeks before the convention every other aspirant for the nomination had disappeared, and Judge Edward F. Dunne was unanimously declared the nominee. The Democratic platform, supposedly written by the candidate, demanded "that Chicago follow the example of the enlightened municipalities of both the old world and the new by taking immediate steps to establish municipal ownership and operation of the traction service of the city."

That was what was wanted, and although just a few months before, in the fall of 1904, President Roosevelt had carried the city by a hundred thousand majority, on April 6, 1905, Judge Dunne was elected mayor of Chicago by a majority of nearly twenty-five thousand votes. At the same election the following three questions were submitted to the vote of the people:

First. "Shall the city council pass the ordinance reported by the Local Transportation Committee to the city council on the 24th day of August, 1904, granting a franchise to the Chicago City Railway Company?"

Second. "Shall the city council pass any ordinance granting a franchise to the Chicago City Railway Company?"

Third. "Shall the city council pass *any* ordinance granting a franchise to *any* street railroad company?"

For the first time in the history of referendum votes the people, if they wanted to record their vote in favor of municipal ownership, had to vote "no," while in every former referendum they had voted "yes." It was feared that this might lead to confusion and fail to bring out the real intention of the citizens, but what was the result? The so-called tentative ordinance submitted in the first question was snowed under by a vote of sixty-four thousand three hundred and ninety-one for, and one hundred and fifty thousand seven hundred and eighty-five against the proposition. On the second question sixty thousand and twenty voted yes, and one hundred and fifty-one thousand nine hundred and seventy-four voted no. On the third question fifty-nine thousand and thirteen voted yes, and one hundred and fifty-two thousand one hundred and thirty-five voted no. The one remarkable fact in this vote was that in every single ward of the city there was an overwhelming majority against these propositions, so that while about one hundred and fifteen thousand voters did not vote at all on these questions, the vote must be accepted as a thoroughly representative one. Even in those wards of the city where the wealthier classes live, the ratio was two to one. That certainly was as plain and emphatic an answer as could possibly be made, and the answer was not rashly given. It was the the result of a thorough study of the ordinance submitted, and of the subject of municipal ownership in general. This study, encouraged by newspapers, brochures and public speakers not only throughout the entire campaign, but for a long period before, brought to the majority of Chicago's citizens the firm conviction that only through the agency of municipal ownership could they expect permanent relief from the greed and oppression of the street railway corporations. The splendid examples of the beneficial results of municipal ownership in England, Germany and other European countries did not fail to leave a deep impression upon the voters, but the main cause for their great strength must be found right at home, for here for many years they themselves had practiced municipal ownership in such a manner that the opposition had to content itself with pointing out petty neglects, not being able to produce any well-grounded reasons against it.

In the two utilities owned and operated by the city, namely, the water works and the electric street lighting plant, the advocates of municipal ownership found the most potent factors for their con-

tention that the transportation facilities also should be owned and operated by the municipality. It was pointed out that the Chicago water works, even before the time of a thorough civil service, when they were to some extent used for political purposes, had been managed throughout without great scandal; that particularly during the last ten years, under a strict civil service, they had been managed economically; the cost to the public for water had been reduced time and again until at present the rates are lower than in almost all other cities; that they were much lower than the rates charged by private corporations, and that notwithstanding this fact, an annual profit of about two million dollars was derived from the water works, which was used to pay for the extension and improvement of the system and the purification of the water supply. In two of the more recently annexed territories of the city, water was still furnished by private companies, whose consumers had to pay for their water more than twice as much as if they had bought it from the city. It may be stated here that one of these private plants was municipalized shortly after the election, the city paying therefor the sum of two hundred and fifty thousand dollars.

The fact was pointed out that our electric street lights, owned and operated by the city, were furnished at a cost of about fifty-five dollars per lamp per year, while for a number of rented lights the city had to pay a rental of one hundred and three dollars per lamp per year, and it was plain to see that in spite of the great outcry of the opponents that the city does not charge off anything for depreciation, etc., the price was infinitely lower than that of the private corporation. These certainly were lessons that told, and the memory of the indignities the citizens and their families had suffered for years at the hands of the street railway companies—the sight of the illy-ventilated, unclean and uncomfortable cars in which they were forced to ride night and morning, huddled like cattle—the knowledge that aldermen and legislators had been debauched by these same traction interests, while their employees had been prosecuted and found guilty of successful attempts to tamper with juries and befoul the very fountainheads of justice—all these things helped to bring about the firm determination of the people that no further franchises should be given, and that the taking over of the street railways by the municipality was the only means through which a decent and adequate service could be permanently had.

In spite of the opposition of the public press, the street car interests, and a considerable portion of the business enterprises of the city, the friends and advocates of municipal ownership remained victorious. Edward F. Dunne was elected, and when, on April 10, 1905, he was inducted into office, it seemed that now, within a reasonably short time, the citizens of Chicago would obtain what they had fought for for many years—a decent and efficient street car service. But let no one believe that the street railway interests and their adherents were satisfied with that verdict of the people. After such an overwheming vote it would have seemed but natural that the council should at once have gone to work and tried to carry out the popular will; but far from it. The election of Mayor Dunne and the unmistakable expression of the sentiment of the people simply marked the beginning of the real fight for municipal ownership. Perhaps there were some adherents of the new mayor who were deceived by the term "immediate," and probably expected that following the inauguration the city authorities would seize the street railway properties and operate them for the benefit of the people. If there was any such belief at the time, the newspapers certainly tried to encourage it, and within a short time began to scoff at the mayor and his advisers because municipal ownership was not had, nor indeed was even in sight.

According to the contention of the city authorities the franchises of the traction companies had expired July 1, 1903, but they were permitted to continue to run pending the controversy and decision of the Supreme Court on the ninety-nine year question under a special authorization by the city council. In the meantime a decision had been rendered by Judge Grosscup, of the federal court, which, although unsatisfactory to both of the contestants, gave the city some advantage, as according to it the street railway companies lost all rights to those lines for which franchises were granted later than 1872; thus denying the contention of the street railways that all franchises granted at any time would not expire until the original franchise expired, namely, in 1958. One line particularly, the Adams street line, for which a franchise had been granted to the Chicago Passenger Railway Company and had expired on April 26, 1904, had been selected by the past administration for trying out municipal ownership and operation as well as the validity of the certificates that under the Mueller law could be issued in payment of the cost,

and which had not been tested in the Supreme Court. The plan comprised about fifteen miles of track. The municipal street railway system to be established through this line was to be extended from time to time as other lines expired. But this proceeding was also interrupted by an injunction from the federal court, and when, after full argument, no decision was rendered, and it was learned from a public utterance of Judge Grosscup made in court, that he deemed it unnecessary to decide the case as long as negotiations were pending for a general settlement with the Union Traction Company, the city advertised for bids for the construction of a municipal street railway on Adams street, the advertisement appearing for the first time on April 3, 1905. These bids were to be opened on July 1, 1905. Some weeks prior to this latter date a decision upholding the contention of the city was rendered by Judge Grosscup, and shortly thereafter it was discovered by the advisers of the new mayor that ordinances covering at least thirty miles of streets on the west side, and considerable mileage on the north and south sides had already expired, which could be profitably constructed and operated, and that the city in its first contract could offer at least one hundred miles for construction. In a message to the council the mayor stated that it seemed to be advisable to defer the reception of bids until a comprehensive plan for the greater system could be completed. The advertisement was withdrawn, and on July 5th Mayor Dunne submitted his plans to the council. In his message of that date he stated:

"The people of Chicago having plainly manifested their desire for municipal ownership of street railroads with the least possible delay, I have diligently sought since my inauguration as mayor for the best information and the best advice regarding the subject, and have carefully considered all suggested plans."

He called the attention of the council to the fact that already one hundred miles of track were free from corporate control, and that within the next two years two hundred and forty miles in all would be at the disposal of the city, and that within six or seven years a great majority of all the seven hundred miles of trackage now under operation will be incontestably subject to municipal ownership. He further pointed out that in the ninety-nine year controversy "a ruling more favorable to the city than that adopted by the Circuit Court is expected to be established by the court of last resort."

Turning then, to the demand for municipal ownership, Mayor Dunne submitted for the consideration of the council two plans to secure this result. The one plan, generally called the "city plan," contemplated the construction and operation of a municipal street car system for the city of Chicago through direct financiering by city officials under the legal authority from the Mueller law. The second plan, called the "contract plan," contemplated the construction of a street car system for the city through the instrumentality of a private corporation acting in the city's interests. The mayor preferred the second plan for the reason that it "avoided every element of delay that in the city plan would be caused through condemnation proceedings, appeals and repeated referendums, and because it would be, financially as well as legally, immediately practicable, and enable the city to proceed at once with the reconstruction under circumstances assuring as good service at as early a day as the best conceivable system for private profit could provide. The rights of the city to take over and even to operate would be neither impaired nor postponed. As soon as a market for the Mueller certificates had been secured the city could acquire the system in its own right, and in its own name; and as soon as the people had by referendum under the Mueller law so decided, the city could proceed to operate by its own employees." The contract plan, Mayor Dunne contended, provided in effect for what the Mueller law contemplated and the people have demanded—immediate municipal ownership of the street car service.

The entire message, together with an ordinance covering the contract plan, was referred to the Committee on Local Transportation. This committee, meanwhile, had continued its negotiations with the street railway companies, who had stated definitely their demands and the character of a franchise they would accept in settlement of the controversy. The contract plan of the mayor was almost contemptuously shoved aside by a vote of eight to five, and on October 9th, the mayor sent a message to the council calling attention to the vote had in April, and pointing out that the Local Transportation Committee, instead of considering the plan submitted by him in his message for the purpose of bringing about municipal ownership of street railways, was then engaged in considering certain proposed ordinances presented by the street railway companies and contemplating the granting to them of new franchises for the

period of twenty years. He gave it as his opinion that, "Consideration of these franchise extension ordinances in the face of the vote above referred to is in defiance of the express will of the people." With the message he laid before the council an order that the Local Transportation Committee cease the further consideration of the ordinances submitted by the street railway companies, and report to the council at its next meeting the ordinance submitted by the mayor, commonly known as the "contract plan." This order was defeated by a vote of twenty-two against forty-one.

Again, on October 16th, the mayor sent to the council a message reiterating the vote had at the April election, and pointing out that the Local Transportation Committee was not acting in accordance with that vote. Accompanying this message was an order that the Local Transportation Committee cease all negotiations contemplating the granting of a franchise to any of the present existing street railway companies, and all negotiations with said companies excepting those looking toward the purchase of their properties. This order was defeated by a vote of twenty-seven to thirty-seven.

On October 23d, a third message from the mayor called attention to the adoption of the Mueller law in April, 1904, and the vote upon the question, "Shall the city council upon the adoption of the Mueller law proceed without delay to acquire ownership of street railways under powers conferred by the Mueller law." He pointed out that every ward in Chicago had voted in favor of municipal ownership under the powers conferred by that law, and accompanied his message by an order instructing the Local Transportation Committee, in co-operation with the legal advisers of the city, to proceed without delay to prepare an ordinance for the purpose of acquiring ownership of the street railways of Chicago under the powers conferred by the Mueller law, and that the matter of the preparation of said ordinance take precedence over all other matters now under consideration by the Local Transportation Committee. The consideration of this order was deferred for one week, and on Monday, October 30th, the opponents of the mayor moved the substitution of a resolution whereby the Committee on Local Transportation was directed "to consider and report to the council at an early date a method of making a legal test of the validity of the street railway certificates authorized by the Mueller law." This resolution was adopted by a vote of forty-five to twenty-one. An amend-

ment offered, that the committee cease all negotiations with the traction companies except with a view of the purchase of their properties, was laid on the table by a vote of forty-three to twenty-one. Thus the mayor and the advocates of municipal ownership were again defeated.

When asked for his views on the result, Mayor Dunne stated: "One point is plain; the city council as now constituted is not friendly to municipal ownership;" and he further declared: "the fight for municipal ownership has just begun." And from the way things look, truer words were never spoken.

The fight has begun to take on a most disagreeable aspect. The street car companies and their supporters try to harass the administration at every step, although under a decision of Judge Grosscup a goodly part of the franchises have expired, and the companies are allowed to run on the streets by mere permit, revocable at the pleasure of the council. The City Railway Company during 1904 obtained a permit to equip a certain line with a trolley system, which was technically revoked last March, although left practically undisturbed for the convenience of the public. The company, pleading this technical revocation, is trying to avoid paying the license fees reserved in that permit for the purpose of compelling still more privileges, though knowing that the city could legally stop the use of that trolley any day. With an unprecedented boldness they attack the administration for refusing them new permits which they claim are necessary for the betterment of the service, and are doing their utmost to cause as much dissatisfaction among the people as possible.

Certain newspapers have acquired a habit of jeering at the mayor and ridiculing his municipal ownership propositions; some of the aldermen are parading their opposition in an openly defiant and almost indecent manner and a great deal of bitterness has come to the surface. But undaunted by the hostile attitude of the council, with a fidelity to his duty, as he sees it, and with a devotion to the cause he champions that must challenge the admiration of even his enemies, Mayor Dunne, on November 13th, sent to the council still another message, in which he says:

"And inasmuch as further delay can but operate favorably to the interests of those companies and unfavorably to the interests of the people of the city, and as the counsel for the city have now completed their proposed ordinance for proceeding under the Mueller law for the establishment of municipal

ownership, I am of the opinion that such proceedings on our part ought to begin at once. The advisory votes under the public policy statute having clearly instructed every member of your honorable body, regardless of party politics and every other consideration, to proceed without delay to acquire municipal ownership under the Mueller law, I respectfully submit to your good judgment that it has now become the duty of your honorable body to provide for the necessary mandatory referendum under the Mueller law. Similar instruction having been given to me as mayor, both by advisory referendum and the circumstances of my election, I have no doubt of my own duty to do all in my power to accomplish that result. I, therefore, advise your honorable body to proceed without further delay to establish municipal ownership of the traction service under and pursuant to the Mueller law."

This message and the accompanying ordinance were also referred to the Committee on Local Transportation. It is possible, yes even probable, that the committee will report out some kind of an ordinance along the lines of the Mueller law for submission to the people, but meanwhile they have almost completed ordinances for the extension of the franchises of the present companies for twenty years which will be submitted to the city council within a short time. Whether these ordinances will finally be passed, however, will entirely depend upon the people, as in a resolution passed October 16, 1905, the council pledged itself that any ordinance for the settlement of the Chicago street railway question before its final passage by the council shall be placed upon the ballot to be voted upon by the people. Thus the people will have the last word. Will they reverse their opinion of six months ago, or will they stand by their verdict three times given? The public press, with but one exception, favors an extension of the franchises, and claims that a great deal of discontent over the failure of the mayor to end the controversy exists among the citizens. But the advocates of municipal ownership are keeping up the agitation, and do not believe that the street railway interests will succeed in wearing out the people to such an extent that they will forget what they have been made to suffer for so many years, and meekly surrender to the corporations.

Aside from the street railway situation the movement of municipal ownership is making steady progress in Chicago. The last legislature passed a law enabling the city to sell its surplus electricity, and to regulate and control the gas service. This law was submitted to the people at the last November election, and was carried by a great majority. The city is enlarging its electric lighting plants,

and claims that it will be able to sell electricity at one-half the rates at present charged by the private companies.

Another sign of the progress of the idea of municipal ownership, is the fact that in the last campaign both parties declared in favor of public ownership and operation of the water power now in course of development, which was created through the Sanitary Canal. A few years ago there had been much talk of turning over this power to private interests to be developed and utilized by them. As it is, the trustees of the sanitary district elected at the last November election stand absolutely pledged to the principle of municipal ownership, and the municipalities within the district will be enabled at an early date to use this immense power for their own public purposes, such as street lighting, operating pumping stations, turning bridges, etc., and thereby materially cheapen the cost of these services.

Chicago, November 25. 1905.

STREET RAILWAY FRANCHISES IN MASSACHUSETTS

By Walter S. Allen,
Secretary of the Special Street Railway Commission of 1897.

Although Massachusetts was not the first state in which railways for the transportation of passengers were laid in the streets, yet it was among the earliest, and the great development in recent years, which has taken place, not alone along physical lines but also upon legal and economic lines, has made the conditions in that state of especial interest.

The first street railway was opened in New York in 1852, and in the following year the legislature of Massachusetts granted two street railway charters, one for the establishment of a line between Boston and Roxbury and the other for a line from Boston to Cambridge. This latter company organized at once, and in December, 1854, secured a location in the streets. It then undertook to secure subscriptions to its stock but met with little success, only raising a few thousand dollars in this way. A contractor was however found who was willing to build the road and receive his pay in securities, and on March 26, 1856, the road was opened for travel between Bowdoin Square in Boston and Harvard Square in Cambridge, a distance of about three miles. It is curious to note that this first Massachusetts road was of the type known now as interurban, rather than purely urban in its character. It was but a short time before the other cities lying about Boston—Roxbury and Charlestown and South Boston—secured this form of transportation, although the old established omnibus lines still continued to run. Indeed it was not until early in the eighties that the line of omnibuses which ran to Roxbury was finally given up.

While the Cambridge and Roxbury street railways were to a certain extent interurban in character, and ran for considerable distances over marshes and past long stretches of vacant land, it was plain that in time these lands would all be occupied, and the suburban

districts would be incorporated into the larger city. But in 1859 a railway strictly interurban in its character was built. This connected Boston and Lynn, a distance of about ten miles, and traversed a country which showed no indications of dense settlement, and which even to-day presents long stretches of vacant land. This railway was built along the old turnpike and connected Lynn directly to Boston, also serving a few scattered settlements along the turnpike.

These early street railways required special legislation to enable them to carry on their business, and the laws began speedily to adapt themselves to the conditions. Each railway was incorporated by special act of the legislature, and each charter granted certain privileges in the streets, and authorized the city authorities to impose certain restrictions. It may be well here to note the fact that the control of the streets and highways in Massachusetts rests in the legislature, and that the courts have repeatedly held that when acting on questions concerning these, the aldermen are not acting as municipal representatives but as direct servants of the legislature, which has by statute delegated certain of its powers to them.

These early street railway charters provide that the mayor and aldermen shall determine in what streets the company may lay its tracks, the distance from the sidewalk at which the rails shall be laid, the grade and the gauge; and they shall at all times have power to make such regulations as to the speed of the cars and the mode of use of the tracks as public safety and convenience may require. The company is given power to construct, maintain and use such tracks on the location granted by the municipal authorities. These charters were granted for a term of fifty years. In 1854 amendments were made to the charters granted in 1853, one providing that at any time after the expiration of one year from the opening of the road for use the mayor and aldermen may, by a majority vote, determine that any of the tracks which the board sees fit shall be discontinued, and thereupon the tracks of the company shall forthwith be taken up and removed in conformity with the vote or order of the mayor and aldermen; another that notice shall be given to all abuttors before a grant of location is made, and still another that rates of fare within the city of Boston shall not exceed five cents except with the consent of the mayor and aldermen. From this time on the section relating to the revocation of locations was inserted in each new charter granted to a street railway company.

All these charters require that the company shall maintain and keep in repair such portion of the streets and bridges as shall be occupied by its tracks. One charter required a company to keep in repair the whole of the bed of any road in which it might lay tracks, but this was changed in the following year and limited to repairing that part of the road occupied by the tracks of the railway. The act further defines the part of the road to be kept in repair as "the space between the rails, and so much on each side thereof as shall be within the perpendicular let fall from the extreme width of any car or carriage used thereon, being the space from which the public travel is excluded during the passing of said car or carriage."

These charters also provide for the purchase by the municipalities of "all the franchise, property, rights and machinery of the company at any time after the expiration of ten years from the opening of any part of the road, by paying for these rights such a sum as will reimburse to each person who may then be a stockholder therein the par value of his stock, together with a net profit of 10 per cent. per annum from the time of the transfer of said stock to him on the books of the corporation, deducting the dividends received by said stockholder thereon."

It was early recognized that the use of the streets for more than one set of tracks was infeasible, and as early as 1857 a provision was inserted in one charter allowing this road to run over the tracks of another, and in 1863 a general law was passed governing the use of the tracks of one road by another.

By 1864 the spread of these street railways had become so great throughout the commonwealth that an attempt was made to unify the laws, and in that year a general law was passed to govern them. In this general law the feature of a perpetual location, subject to revocation by the local authorities, was retained, and definition of the space in the streets in which the pavement was to be maintained was defined to be the space within the tracks and eighteen inches on either side. In this law the provisions existing in many of the original charters providing for eventual municipal ownership of the roads were eliminated. But this general law was evidently not an entirely satisfactory statute, for in the same year a commission was appointed by authority of the legislature to investigate the whole subject of street railways. This commission made a report to the legislature of 1865, and submitted a bill which failed of becoming a law. Even

at this early date it was recognized that the local authorities had in many cases imposed unjust burdens upon the railways, and that the power to revoke locations might be improperly used, so that the commission recommended that extraordinary conditions must be shown to be based upon good and sufficient reasons; that these reasons must be stated, and must be good in law. It also recommended that there should be an appeal to the courts from an order of revocation issued by local authorties. As the subject of the creation of a board of railroad commissioners was then under discussion this commission recommended that, in the event of its creation, this board should have jurisdiction of street railways as well as of steam railroads, but, as stated, all these recommendations failed to become law.

It was not until 1871 that a Board of Railroad Commissioners was established and given jurisdiction over street railways, and at about the same time the law in relation to them was codified. Under this law the street railways operated until 1898 with but few changes.

The most important of these modifications of the original law was the passage, in 1894, of the so-called "anti-stock-watering laws." These laws, which were made to apply to all of the public service companies, were intended to prevent the issue of stock without adequate payment for the same, and provided that street railway companies must obtain the sanction of the Board of Railroad Commissioners for any new issue of stock or bonds, and that such an issue should be made at a price fixed by the board, but at not less than par. The price fixed was to be determined by the actual market price of existing shares and by other pertinent conditions. The practical working of this law has been different from that intended by its authors. It was difficult for the street railway companies to go before the board and show the exact cost of needed extensions, and request the authorization of stock issues to cover the cost, and the board was naturally reluctant, after being put in the position of guardian of the people's rights, to assume that the cost of contemplated work was correctly stated. Moreover, changes might vary in a marked degree the cost of the work during the progress of construction. The practice, therefore, has grown up of the railways going ahead and completing desired extensions, incurring a floating debt for the work, and then, after completion of the work, going to the board and asking for the authorization of an issue of stocks

or bonds for the payment of the debts so incurred. In many ways this practice has been expensive, and the condition of the money market has often been such that companies have refrained from making improvements which would have been undertaken had there been power in the company to issue new shares in advance of the work. While these laws have undoubtedly been of advantage in preventing the wholesale watering of street railway stock at the hands of promotors, they have been disadvantageous to the conduct of honestly managed enterprises.

The successful introduction of electric traction in 1888, and its rapid spread brought into existence an entirely new set of problems, and by 1897 the law was found to be inadequate in many of its provisions. It was felt that franchises were too freely given in some places, that in others the conditions imposed were too onerous, and that the rapid extension of interurban roads demanded important changes in the law. Among the people a feeling had grown up that the new type of street railway, which was being so rapidly extended through country roads and into small villages, should be compelled in some way to pay taxes in excess of those already fixed by law. On the other hand the railways felt that the right of local boards of aldermen and selectmen to revoke at any time a location in the streets was a menace to their property, and that investors in street railway securities were not sufficiently safe-guarded against hasty action by such boards. The legislature of 1897, therefore, passed a resolution authorizing the governor to appoint a committee of three persons, to be known as the "committee on the relations of street railways to municipalities," to sit during the summer and report to the legislature of 1898 what changes, if any, were desirable in the street railway law, especially as it concerned franchises and taxation. Governor Wolcott appointed as members of this committee Hon. Charles Francis Adams, Hon. William W. Crapo and Hon. Elihu B. Hayes, and they immediately began the work of investigating the conditions as they existed both in Europe and America, and heard the railway companies, the municipalities and those citizens who had plans to offer for any changes in the law.

The condition of the franchise law has already been stated, and attention may be called at this point to the law governing the taxation of street railways as it then existed. Massachusetts had a law in operation governing the taxation of franchises which

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had been in force since 1862. This law is applicable to all Massachusetts corporations, whether operating private business or public utilities. In substance its provisions are these, the municipalities assess the value of the tangible property of a corporation located within their boundaries, and the state determines the total value of the capital stock, as shown by sales, or as determined by the tax commissioner from all evidence obtainable. From the total value of the capital stock of the corporation, as determined by the tax commissioner, there is deducted the value of the tangible property of the corporation, as determined by the local assessors, and upon the difference in these values the state levies a tax at a rate equal to the average rate assessed upon property in all the towns and cities of the state. The state after collecting this tax distributes the proceeds among the several cities and towns in proportion to the shares of stock in these corporations held in them, retaining in the state treasury the tax upon shares held outside the state. As the tax is in this way paid directly by the corporations, the shares in Massachusetts corporations are not taxed to the holder living within the state. Evidence was presented to the special committee of 1897 showing the burden which the existence of street railways placed upon the municipalities in regard to the repair of streets, and it was shown that the introduction of heavy electric cars, running at high speeds, had increased this burden. On the part of the street railways it was shown that there was a constantly increasing burden put upon them by the requirements made by the city in regard to paving and repairing streets and caring for snow and ice.

The committee took two radical steps in regard to taxation. Realizing the justice of the claim of the municipalities as to their burdens, they proposed the distribution of the state tax on street railways according to the mileage of track in each town or city, and not upon the shares of stock held in each, and further, it presented a plan for the commutation of the charges for care of the streets, based upon the gross earnings of each company, relieving them of the work on the streets. It was of course not possible to change existing contracts under which the roads were operating, but an attempt was made to secure to the municipalities an individual control of the surface of the streets, the railways commuting their obligations to care for the streets into a money payment.

As regards the tenure of franchises, the existence of perpetual

revocable franchises was seen by the special committee to be an anomaly, but they had worked well under Massachusetts conditions, and in practice but two attempts had been made to revoke franchises. In both these cases public opinion caused the speedy repeal of the revocation order. The committee felt, however, that the interests of the stockholders in street railways ought to be protected against hasty action on the part of municipal authorities, and they recommended giving the roads a right to appeal to the Board of Railroad Commissioners from any order revoking a location which might be made by the local authorities.

There were a number of other changes proposed, mostly of a minor character, the most important being the grant of the right to the Railroad Commissioners to give a location to an interurban road in a town where it had been refused or burdened with unjust conditions by the local authorities. This change was due to the fact that it was found that some of the smaller towns had attempted to "hold up" interurban roads which were obliged to build through their limits in order to connect larger towns, and it was based upon provisions in the law relating to telegraphic companies.

This act, submitted to the legislature of 1898 by the special committee, became a law substantially as presented, but to a large measure was only applicable to the railways outside of Boston. In Boston a statute granting rights to the Boston Elevated Railroad, passed in 1897, provided that, so far as taxation was concerned, no change should be made in that act for a term of twenty-five years. As there are many peculiar features in the Boston street railway situation it will be considered by itself.

In 1904 all the statutes of Massachusetts were revised, and the street railway law as then existing was brought into one chapter, embodying all of the laws passed up to that time. Since then two topics have come to the front—the carriage of freight by street railways and the granting to them of the right of eminent domain. For several years different street railways had secured from the legislature special acts giving them the privilege of carrying express matter and certain forms of freight, and although these were in general opposed by the steam railroads, it was always possible to secure their passage. A general act was passed in 1903 governing the carriage of express and freight, but this was modified in 1904. The original act allowed the street railways to act as common carriers with the

consent of the aldermen or selectmen of the towns through which the road passed, but the act of 1904 limited the power to the carriage of such things, and the employment of such methods, as the Railroad Commissioners should approve.

The legislature of 1904 granted to the street railways a right to take private lands with the approval of the aldermen or selectmen and the Railroad Commission, and the legislature of 1905 had before it several special bills granting full powers to street railways to take land for their purposes, but none became a law. A special legislative committee is now considering this question and several other street railway matters, and this committee will report to the legislature of 1906.

During the past few years the physical and economic changes in the street railway situation have progressed even more rapidly than the legal changes, and these deserve careful attention.

From 1856, the date of the opening of the first horse railroad in the streets of Boston, until 1888, the date of the first successful introduction of electric traction, the progress of street railways had been constant and steady, covering all parts of the state, but in these thirty-two years there had been built but 562 miles of track. With the demonstration of the practicability of electric traction the street railway mileage increased at an extraordinary rate, so that by September 30, 1904, there were 2,652 miles of track operated in the State of Massachusetts, and this whole mileage was operated by electric power.

The natural development of the horse railway was urban and suburban, because of the limitation of the area which could be served. There is necessarily a limit to the time which people can devote to being transported from their homes to their work, and this natural limit affects the patronage of any form of transportation. It may be safely assumed that an hour represents the time which can be devoted to getting to and from work, and the speed at which transportation can be handled governs the area which is tributary to any urban centre. With the horse railroad this time covered at the outside a radius of eight miles, and the first effect of the introduction of high speed electric traction was to increase the suburban residence area from a radius of eight miles to one of fifteen miles, so that the tributary area of any given urban centre was practically quadrupled. At the same time the street railway naturally became an interurban means of transportation.

Massachusetts is essentially an urban state, and the urban centres are rarely more than fifteen miles apart, so that it is plain that interurban street railways must intrude upon the field of the steam railroads. It was not long after the practical application of electricity before bold promoters entered this field, and roads designed to enter into competition with the steam railroads were projected and built. The steam railroads affected to be indifferent to this phase of street railway development, and did nothing to meet the growing opposition, allowing this extension to go on without giving it due consideration. It was not long before many of the branch steam railroads found themselves seriously affected by the competition of these interurban electric roads, with their flexible forms of operation, but by this time it was too late to bend them to the advantage of the railroads. A consideration of the probable effect of these roads, and a study of the methods employed in Belgium and Italy, under which small lines of narrow gauge railroads running out from the main trunk lines of the steam railroads to the smaller and more remote villages, would have pointed out the way to make these electric roads tributary to the steam roads instead of competitive, and there might then have been no great street railway systems, such as exist at the present time.

But while the electric interurban railways were making these inroads into steam railroads there were evils growing up in their own field. It was easy to convince anyone that a profitable business would grow of itself in districts where at that time there was no traffic; that the interurban road would make traffic. This sometimes proved to be the case, and the very fact of this proof convinced people that this would always be the case, so that it was easy to secure funds for the promotion of any scheme for an interurban road. As these roads were promoted and began to spread over the state the authorities of the small towns began to feel that they might make demands upon the promoters for all kinds of improvements in return for the right to lay tracks. The widening of existing highways, the laying out of new highways, the grading of roads, the lighting of streets, money payments for the use of the roads, and other concessions, were demanded, and as the promoters of these schemes were anxious to complete roads and sell the stock in them in order to begin new roads, they were ready to agree to all sorts of onerous conditions. It was not difficult to foresee the result; in

order to continue their existence these smaller and weaker roads, the roads which had to create their own traffic and pay dearly for the right to create it, must consolidate. It was necessary for them to join with roads having a solid urban basis for their extensions in order to continue their very existence, in order to continue to operate.

The result of this rapid extension of rural and interurban roads, and the resultant consolidations has been to build up street railway systems covering large areas and to force them to assume the position of active competitors of steam railroads. Long distance cars running frequently have taken the place of cars simply connecting the nearest urban centres, and every year sees the extension of routes of this type.

The financial results of this rapid extension of street railways have not been wholly satisfactoy, an era of readjustment, which inevitably follows over-expansion, has set in in Massachusetts. The following extract from the last annual report of the Board of Railroad Commissioners shows the position of the roads very clearly:

"In the early days of the change from horse to electric railway, promotion ran wild with the idea that immense profits were to be realized in the extension of the old and in the construction of new railways as electric roads in any and every direction; that where no business was in sight it would appear under the creative magic of the electric car. The test of this opinion, necessarily a test of years in which novelty disappears, is now practically complete. Experience has shown that with the more expensive roadbed and equipment, the heavier rail and larger cars, there has not been the corresponding and expected development of permanent business. Operating cost, too, in heating cars and in repair and renewal of plant, has proved larger than was expected. With the new accommodation and the nearer approach to railroad conditions has come the increased demand of the public for expenditures in the interest of safety and comfort which had not been counted upon, as for example in construction of double track, installment of signal systems and establishment of waiting rooms. Hurried along by the natural enthusiasm for the new type of railway, with its many most attractive features, capital, sometimes deliberately misled, has been invested in undertakings for which there was not sufficient demand and which are now represented by roads run, not only without return upon the investment, but at an actual loss of capital. In such cases the future promises as possible events: the acceptance of an unsatisfactory service as better than nothing; an increase in fares; or the abandonment of the railway."

The conditions imposed in original grants in relation to concessions and payments, and the establishment of low fares, while readily

accepted by promoters whose only object was the completion of the road, have become burdensome as the novelty has worn off and travel has settled into normal channels, and on this point the official opinion of the Railroad Commissioners is of value. In their last report they consider this question of fares, and give the following clear exposition of this problem:

"Upon some railways fares have been raised, and with encouraging results, but this action is usually unpopular and is often taken at the risk of lessening the volume of business. It is, moreover, at times complicated by agreements made between companies and town officials when locations and privileges in the streets were granted. If, however, this is the remedy, it is better that it be applied than that the public lose the benefits which the railways bring.

"Another incident of the present situation has been the enforcement upon certain systems of a seemingly arbitrary distinction between the long and the short distance ride, to the provocation of the through traveler, who is loth to admit that there is any justification for it. The zone system has never been favored in this State. Instead, there has been adopted the five-cent fare within city and town limits, in some cases between centres of adjoining towns. As new grants of location have been sought, the five-cent fare has been made good for greater and greater distances, frequently through the use of transfer checks. This low fare promotes a better distribution of population in large communities and is conveniently paid and collected, while the company has been enabled to reap a profit in the frequency with which cars have been filled and refilled with persons taking short rides. In one notable and exceptional instance this fare covers five cities which were deemed to be so closely connected as to make practically one continuous community and so to give the company the advantage of continually changing patronage from point to point. The attempt, however, upon interurban lines to maintain these local concessions and at the same time to establish a sort of mileage basis for through travel, with arbitrary fare limits, has naturally led to frequent complaints from those who think they are unjustly denied privileges which are given to others. The companies as well as the traveling public would be benefited by the establishment of a more satisfactory system of fares upon these railways. Much study has been and is being given to the matter, but as yet the problem remains unsolved."

Intimately connected with this question of fares is the question of taxation. At the present time it is popular to take the position that all public service companies should make some payment to the municipalities in the form of franchise taxes, or special taxes of some sort, for the use of the streets. The fact that taxes are a part of operating expenses, and are directly assessed upon the user seems to have been entirely lost sight of. It is popular to say that any

corporations using the streets should pay for the right, just in the same way as it is popular to say that governments, either city or state, can embark in enterprises from which good business judgment holds private capital aloof. Although taxes upon private property are clearly felt to be a burden upon business, taxes on public utilities are considered to be merely a new source of revenue to the municipalities.

Taxes are always a part of operating expenses, and an important part. According to the last report of the Railroad Commissioners the street railways in Massachusetts pay in direct taxes 6.3 per cent. of their gross income, and what they may pay in indirect taxes due to burdens placed upon them by municipalities in the original grants of locations is not easily determined. It is probably well within the fact to say that taxes, direct and indirect, represent 10 per cent. of all the fares collected from passengers, or, in other words, each passenger in Massachusetts who pays a five cent fare pays one-half cent in taxes, which, for those who make the greatest use of street cars—the wage-earners, is a heavy burden.

The social and economic importance of the great expansion of street railways, due to the introduction of electric traction, cannot be overestimated. The rapid extension of these lines into suburban areas has changed the entire course of land values, resulted in the occupation of large areas of land which, without the means of cheap and rapid transportation, brought about by the electric street railway, would have remained vacant for many years to come, and has carried the thrifty class of wage-earners out into the country, with all its advantages, while at the same time preserving to them all the advantages of urban life. The city schools are accessible, and, at the same time, the children have the freedom and advantages of country life. The extension of long interurban lines, with pleasure resorts maintained by the railways, located in attractive places along the route, affords opportunity for long journeys through the country at small expense, and gives a chance for country outings to dwellers in city districts. From June to November these long distance lines are patronized by crowds of city dwellers who get their knowledge of the country surrounding them under the most favorable conditions. Instead of devising new methods to increase the burden of taxation on these means of improving the condition of the people, it ought to be the object of the state to foster the extension of street

railways, and to relieve them of existing burdens rather than to impose new ones.

So far the street railways of Massachusetts have been considered without special attention to the problems involved in the metropolitan district of which Boston is the centre. The municipal area of Boston, with a population of 600,000, cannot be taken by itself when the transportation problem is considered. The true transportation area of Boston is composed of a score of separate municipal areas, with a population in excess of 1,200,000. Its topographical peculiarities are such that the problem involves bringing in, in the morning, the suburban population along the sticks of a fan, and the distribution at night of the same people along the same lines, but in a reverse direction, so that the congestion of street car traffic in the downtown districts probably exceeds that of any city in the country. The problem of street transportation in Boston presents many features of interest, and its historical development, both physically and legally, is worthy of extended study. The first lines leading to the suburbs were those previously mentioned, and their construction dates from the fifties. As the city grew, and its boundaries expanded through the occupation of vacant land, and the annexation of neighboring municipalities, the demand for adequate transportation facilities grew also, and new street railways entered the field. In an urban district, such as Boston and its suburbs, promoters were quick to see the possibilities, and new companies entered the field from time to time. The legislature of Massachusetts and the city council of Boston, being imbued with the feeling—almost universally held at that time—that the more competition there was in street transportation the better off the community would be, freely granted rights in the city streets to these new companies.

This competition led to the absorption and lease of weak lines, and the number of companies was reduced, until in 1865 there were only four street railway companies operating in Boston, each serving a different district. To the north, connecting Charlestown with Boston, and there meeting the Lynn and Boston Street Railway Company, extended the Middlesex Street Railroad; to the west the Union Street Railway Company, the lessee of the Cambridge Street Railroad Company, united Cambridge and Boston; to the south the Metropolitan Street Railroad Company served to connect Boston with Roxbury, and towards the east the South Boston Street Rail-

way Company brought the detached settlement on the peninsula projecting into Dorchester Bay into closer connection with the heart of the city.

These four roads continued their separate existence for about twenty years, during which time other competing roads were built, and in turn absorbed. There was, however, a single exception. The Highland Street Railway Company, originally built as a competitor of the Metropolitan Railroad in the Roxbury district, proved itself capable of independent existence, as the large amount of land made by filling in the Back Bay drew a large population into a district lying to the west of the original Metropolitan lines, and poorly served by them. In 1887 legislative sanction was obtained for the absorption of these five companies into the West End Street Railway Company, and for the first time Boston found itself with a single street railway system. The West End Street Railway, originally incorporated for the purpose of developing large areas of unoccupied land in Brighton and Brookline, had at this time built only a short piece of road, but it was simpler to use this company to absorb the rest of the Boston companies than it was to bring about a consolidation of the different companies. For the next ten years this enlarged West End Street Railway Company served Boston and its suburbs, spreading out more and more widely each year.

Of equal importance with the consolidation into one company of these different roads was the equipment of the consolidated road with electric power, begun in 1889 in a small way, almost experimentally. This proved itself so practicable that in a few years the whole system, excepting only a few minor lines, was equipped for electricity. The first experiments in 1889 were made with overhead wires, and also with a conduit system, but the former was so much cheaper to construct and presented so many advantages in operation that the conduit system was abandoned, and the only construction to-day in use in the state is the overhead conductor.

By 1890 the congestion of street cars in the heart of Boston had become so great that it was necessary to devise some plan for relieving the overcrowded streets of the central district. After careful study by a very able commission an elaborate report was made in 1892, which included a thorough investigation of all that had been done both in the United States and Europe, and acting on that report the legislature of that and the next two years passed acts authorizing

the city of Boston to construct a subway, immediately under portions of Tremont and Boylston streets, into which all the cars traversing those streets were to be turned, and the tracks on the surface were to be removed.

In accordance with these acts the city of Boston undertook the work and built the subway, with a total length of about one and two-thirds miles under the streets of the central part of the city, at a cost of about $4,250,000. Upon its completion it was leased to the West End Street Railway Company for twenty years, for an annual rental sufficient to pay the interest on the bonds issued to build it and to provide a sinking fund which would extinguish the principal in forty years.

In 1896 the demand from the suburban districts for more rapid transit caused the incorporation of the Boston Elevated Railway Company, which immediately planned an elevated structure about seven miles in length, located in the streets. This connects Roxbury with Charlestown and passes across the centre of the city proper and through the subway. The Boston Elevated Railway Company then secured the West End Street Railway by means of a lease, and united under a single management the transportation of passengers within the settled districts of Boston and its immediate suburbs by means of electrically propelled cars on the surface of the streets, under the streets and above the streets. This consolidation and development stage seemed for a while to meet the situation, but only for a short time. Much as the congestion had been relieved by the subway in Tremont street and the elevated road, still congestion of traffic occurred and new subways were planned. At the present time a subway paralleling the present Tremont Street Subway is under construction in Washington street, a tunnel connecting Boston with the island of East Boston has been completed, and plans are under consideration for a subway combined with an elevated structure leading to Cambridge and following the line of the first horse railroad from Bowdoin Square to Harvard Square. In a growing city transportation problems must follow the growth of the city.

The legislation governing this growth has followed its physical development, and its modern development dates from the incorporation of the West End Street Railway Company in 1887. Through this organization the city of Boston acquired for the first time a

comprehensive street railway system. Then as expansion became necessary the Boston Elevated Railway came to the front, and by means of legislative sanction of a broad plan the future was provided for. The important legislative act in the history of street transportation in Boston is the latest act governing the Boston Elevated Railway Company, chapter 500 of the acts of the year 1897. Some of the features of this act will be of interest. First and foremost is the question of fares, always a vital point of interest to the public at large. The act provides that the fare upon the road shall not exceed five cents, and that this shall not be reduced for a term of twenty-five years, provided, however, that it may be reduced by the Board of Railroad Commissioners on condition that the reduced fare shall not reduce the earnings of the company to a point where the return on the cash capital of the company shall be less than 8 per cent., after taking out all charges including a reasonable amount for depreciation. It may be noted here that the statutes give the Board of Railroad Commissioners the power to order an appraisal of the property of any street railway company, for the purpose of determining the value of its property, and ascertaining whether there has been any impairment of its capital, and that this has always been done prior to the authorization of any increase of capital or bonds, or determination of the proper charge for fares.

This statute of 1897 governing the Boston Elevated Company goes further and provides a special method for taxing this property. The statute, drawn in the form of a contract, provides that for a term of twenty-five years no other taxes than those then in force at that time shall be laid upon the railway, but that as compensation for the privileges granted, and for the use and occupation of the streets, the company shall pay a tax of ⅞ of 1 per cent. on its gross income, provided the dividend on its shares does not exceed 6 per cent., but if the dividend should exceed 6 per cent. then there shall be an additional amount paid in taxes equal to the excess above 6 per cent. The tax thus assessed on gross earnings is to be distributed among the cities and towns in which the railway operates, on the basis of the mileage of tracks located in each municipality. The question of transfers, a very important one, in a system of the character of the Boston Company, is to be left in the hands of the Railroad Commissioners. The same act provides for a tunnel to connect Boston proper with the island upon which East Boston is situated.

This tunnel, which has now been completed, was, by the terms of the statute, to be built at the expense of the city of Boston, but was to be leased to the Elevated Company for a rental of ⅜ of 1 per cent. on the gross earnings of the entire system. There was to be charged also a toll of one cent for each passenger using the tunnel. The tolls and the rental were expected to be sufficient to meet the interest and sinking fund charges on the cost of the tunnel, and it was provided in the act that if these combined payments should be in excess of these charges the Railroad Commissioners might reduce the tolls. Up to the present time no agreement has been reached between the railway company and the city of Cambridge in regard to a subway and elevated structure for that city, although negotiations looking towards the accomplishment of that object are pending.

The question of the future relation of the electric street railways to the steam railroads is forging rapidly to the front and is apparently to be the subject of legislative action in the immediate future.

The railroads at the start missed the opportunity to make the electric railways their feeders. They opposed their development at every turn, and forced these interurban roads to make alliances among themselves, which, with the inevitable consolidation brought about by natural conditions, resulted in the building up of street railway systems which in certain sections rivalled the steam railroads in extent. Such systems, by means of their flexible form of operation and low rates of fare, soon made inroads into the suburban and interurban traffic of the steam roads, and caused them to take active measures towards meeting this competition.

As a concrete example of the results of this competition let us take the passenger traffic in and out of Boston on the steam railroads. In 1893 over 56,500,000 passengers were carried in and out of Boston. This traffic began to diminish in the following year, and in 1898 it fell to less than 49,000,000, a loss of about 13 per cent., from this time on it grew again until in 1904 it reached a figure of 56,400,000, or practically the traffic of 1893. To put this in another way—the entire natural increase in population and in the use of means of transportation went for a period of eleven years to the street railways.

The steam railroads in Massachusetts have at last awakened to the importance to them of the question of the electric railway. This may be due to a broader point of view, or it may have been forced

upon them by the larger powers granted the street railways in respect of freight. There is no question but what the legislation of the past few years has been distinctly favorable to the street railways as against the steam railroads. The grants of location in the public highways, the right to carry freight, the right to create a practically continuous grade crossing at the very time when the steam railroads were being forced to do away with these, all constituted an advantage. At the same time physical advantages contributed to the success of the street railway as a competitor of the steam railroad. Improved engineering, resulting in decreased cost of electric current, more permanent construction, reducing maintenance charges, and, above all things, the flexible form of operation by which single cars dispatched as often as the development of the traffic demanded, were substituted for the train of cars and the locomotive dispatched as many times a day as the railroad felt the cost of such trains would justify, all tended to give the electric railways great advantages.

This condition of affairs, which has been taking shape for the last fifteen years, has at last stirred the steam railroads. The completion and successful operation of an electric railway connecting Boston with Worcester, a distance of forty-four miles, and the prospect of a similar road between Boston and Providence, R. I., the same distance, seem to have awakened the steam railroads to the fact that their profitable passenger traffic was deserting them and incited them to efforts to counteract the drift.

One of the most hotly debated measures presented to the legislature of 1905 was one allowing the absorption of electric street railways by steam railroads, and while no conclusion was reached, and the question was referred to the special committee sitting during the recess, it is inevitable that there must be some form of consolidation of these two forms of passenger transportation. The financial results of the operation of many of the interurban street railways show that something must be done in the interest of the investors in these securities, and the inroads made upon the traffic of the steam railroads show the need of action on their part.

Having lost the opportunity of directing the development of the electric railways throughout the rural districts in such a way as to make them feeders of the steam railroads, the future policy of the steam roads must be in the direction of undoing the evils now existing.

The public fears the result of the consolidation of the two rival systems of passenger transportation, and there is a strong opposition to the desired legislation, but the logic of the situation and the economics of transportation must inevitably force the consolidation. It may be done under the authority of the statutes or it may be done outside of the statutes under the pressure of economic facts, but it is inevitable. The public may feel that their rights are not sufficiently safeguarded by the Railroad Commissioners, and the steam railroads and the electric street railways may feel that they are oppressed by the statutes as interpreted by the board, but so far as Massachusetts is concerned there is no evidence to show that the drift of legislation and its administration has not been equitable.

The whole trend of legislation in Massachusetts has been to give the public and the street railways a fair show and to leave disputed questions to the judgment of an expert tribunal—the Board of Railroad Commissioners—but even with this qualification the great growth of this method of street transportation has raised questions ahead of legislation, and there are many problems still to be solved. Taken all in all, there is little question but what the conditions as they exist to-day in Massachusetts come nearer to an equitable solution of the problems involved than they do in other states. There is no doubt a tendency to overtax the street railway companies at the expense of the people they serve, but this arises from the misconception of the incidence of such taxes. The principle of a perpetual revocable franchise seems absurd but in practice it works exceedingly well. It holds the companies to good service under penalty of revocation, and yet by the safeguards placed around the revocation it insures the investor reasonable security for his money. The working of this apparently illogical form of franchise is in practice far better than the popular one of limited franchises. Nothing is more disturbing to the systematic, logical development of a system of street transportation than a limited franchise. It is poor business policy to put money into a street transportation plant which, at the end of a short term of years, may be rendered useless by a refusal to renew the grants of location. Good business policy demands that a company possessing a franchise for a street railway system which expires in a short time shall put aside enough from its income to reimburse its stockholders for the money they have ventured in this plan to supply the public with facilities for transportation, so

that they may be secured against loss at the expiration of the franchise term. This enforced setting aside of a fund for the payment to the stockholders of the money they have invested hampers the company in many ways. It prevents extensions during the last years of the life of the franchise; causes during the entire life of the franchise the question to be raised whether any given improvement will yield enough to provide a sinking fund and a fair return on the money expended, and forbids any improvement which cannot meet these requirements. The problem of street transportation in the United States is of vital importance, and Massachusetts, early in the field, has tried out many of the questions involved. It would be folly to claim that Massachusetts has solved all the complex problems presented by the rapid urban growth of the past twenty years, and the still more rapid growth of suburban localities, but there is no question but that in practice Massachusetts methods have proven themselves sufficiently flexible to meet the rapid growth of urban and interurban street railway conditions as shown in a state distinctly urban in character.

The question of the municipal operation of street railways has not been seriously considered in Massachusetts, although the special committee of 1897 favored municipal ownership of tracks and private operation, but this has never taken practical shape either in legislation or in actual practice. It is a large problem to consider—is a municipality justified in spending the money of the taxpayers on a speculative investment, for, considered from the point of the actual results of street railway operation, such an investment must be considered speculative. The Massachusetts plan of protecting the public and the stockholders by rigid supervision by a competent tribunal certainly deserves consideration in all parts of the country, and its actual operation seems to prove its efficiency in that state at least.

THE GAS, ELECTRIC LIGHT, WATER AND STREET RAILWAY SERVICES IN NEW YORK CITY

By Robert Grier Monroe,
New York City.

New York is wholly dependent upon private corporations for gas and electric light. Private companies own and operate the surface and elevated railways and also operate the subway or underground railway as far as constructed. The water supply is owned and managed by the municipality.

Water Supply.

In 1832 the city undertook the construction of an aqueduct along the eastern bank of the Hudson to the Croton River, thirty-three miles to the north. The Croton watershed is the main source of New York's supply to-day. For the borough of Brooklyn part of the supply is taken from surface streams on the southern slope of Long Island and part drawn from wells. Water is sold by the city for domestic use to householders upon frontage rates—charges proportioned to the size of the dwelling and number of fixtures. To factories, hotels and commercial buildings water is sold by meter at ten cents a hundred cubic feet. Frontage rates come to about half the meter charge. Most of the water consumed is drawn for domestic use and most of the revenue is derived from the water sold for manufacturing and business purposes. The management of the water department is neither highly efficient nor marked with careful economy. It is a fair example of municipal operation. More than one hundred and twenty-five millions have been borrowed from time to time by the city for the construction of water works but less than two-thirds of the debt is now outstanding. Municipal bonds and corporate stock bear low rates of interest. The city has used what water was needed for public purposes and has sold enough to consumers to pay not only the running expenses and interest charges

but also to furnish a fund to retire a portion of the bonds from year to year. The water revenue to-day provides for interest charges and running expenses and at the same time an annual surplus of between three and a half and four millions to be applied to a sinking fund or used for the general reduction of taxes.

Municipal ownership of the water supply is the fixed and settled policy of the city of New York. To meet increasing needs the city is about to enter upon an expenditure estimated to exceed one hundred and fifty millions for building aqueducts and developing the Catskill watershed as a new and greater source of supply. A commission of three appointed by the mayor upon nomination by the Chamber of Commerce, the Manufacturers' Association and the Board of Fire Underwriters will have charge of this public work, and there is every confidence that the public funds will be properly and honestly expended.

Gas Service.

The first gas light company in New York was incorporated in 1823. In succeeding years one company after another was chartered on the theory that the public would benefit by competition. In 1884 the Consolidated Gas Company of New York was organized as a consolidation of six competing or independent gas companies. The consolidation was intended to embrace all the companies at that time selling gas in the then city of New York, but at the last moment one company had to be left out of the combination on account of a specific prohibition in its charter. The Consolidated Gas Company now owns the stock of the one company omitted at the time from the original combination, and also owns the stock of every company chartered since 1884 to distribute illuminating gas on Manhattan Island. This ownership continues in spite of certain seemingly definite statutory prohibitions. In 1900 the Consolidated Gas Company took over the combination of electric companies in the borough of Manhattan.

In 1895 the gas companies in Brooklyn were brought together and the Brooklyn Union Gas Company organized. Brooklyn also has its electrical combination. For some years there has been no competition in the sale of light in the city of New York. The companies are all over-capitalized. That is, the issues of securities are out of all proportion to the intrinsic value of their plants. Stock

and bonds have been issued on earning capacity based upon prices only to be sustained under a monopoly.

Notwithstanding the fact that successive combinations and consolidations have done away with any possibility of competition, the city charter continues to direct that all public lighting shall be let upon contract after public bidding and for a period not exceeding one year. In December, 1902, the first year of Mayor Low's term of office, the usual advertisements were inserted asking for bids for lighting the streets and public buildings for the ensuing year—1903. In due course the regular bids were submitted by the monopoly, but instead of being promptly accepted as in previous years the prices named were examined and compared and the proposals finally rejected. The prices offered for open flame gas lamps ranged from $12 per lamp per year to $25 for the same class of light. The price in each district seemed to be fixed arbitrarily by the particular company there in control. In the past twenty years the cost of gas had dropped one-half, but the charge for city lamps remained unchanged. In certain instances the bids for 1903 corresponded exactly with the bids of 1883. Two thousand candle power arc lamps were fixed at $146 per lamp per year. The average price in other American cities is below ninety dollars.

Mayor Low took the position that the lighting companies as quasi-public corporations occupying public land were bound to render the service for which special privileges had been granted them, and could only exact reasonable compensation for such service. He further held that when a fair price for an article cannot be reached or even indicated by actual competition, the sum the city should pay should be settled after investigation into the cost of production and delivery of the commodity supplied. The monopoly, on the other hand, took the position that unless controlled by specific statutory enactment the seller alone had the right to fix the price. New York could take the goods or not; if she took them she must pay the price imposed. The issue involved disputed questions of both law and fact. The city insisted that gas and electricity be provided for lighting the streets and public buildings, but refused to make contracts on the monopoly's terms and declined to pay the monthly bills when presented, awaiting suit on *quantum meruit* for services rendered or for goods sold and delivered. There was talk of compromise, but the managers of the companies were men of great influence and

wealth and accustomed to overcome any opposition. One company threatened to cut off the light, but an application to the court promptly stopped that performance. Mandamus proceedings were instituted to compel the city to accept the bids and execute contracts, but such proceedings were never pressed. No suits were brought during Mayor Low's administration to collect public lighting bills. His administration stood ready to join in a reasonable settlement, but at the same time it was prepared to protect the municipality—to inquire into the status of important franchises and even to question the legality of the monopoly itself.

Counsel for the companies saw that danger lurked in immediate litigation. There are times when it is well to sue and there are times when it is better to refrain from suit. Appeal to the courts was postponed to await the results of the coming election. New guardians of the public interests might be substituted for the men then in charge.

In the election of 1903 the public service corporations of New York City were able to throw sufficient strength to Tammany to elect Colonel McClellan and defeat Mr. Low. The victory of the lighting monopoly appeared at first to be complete, but the administration it had overcome at the polls had taken steps to safeguard the city's interest with a view to just such a contingency. Precautions had been carefully adopted to make future abandonment of the city's rights difficult and dangerous. In the first place, the Board of Estimate and Apportionment had put itself on record by the adoption of a clear and explicit report approving every step taken by the Department of Water Supply, Gas and Electricity with regard to public lighting for the year 1903. The Board of Estimate and Apportionment, the real governing body of the city of New York, is composed of the mayor, comptroller, president of the Board of Aldermen and the presidents of the five boroughs, and several of these officials were to continue in office with the new administration. It was therefore impossible to have that body reverse itself without embarrassing individual members. Detailed departmental reports were published from time to time during the year 1903 informing the public fully as to what was done and why it had been done. Finally, before the end of Mr. Low's term of office, suits were instituted on behalf of the city against the Consolidated Telegraph and Electrical Subway Company and against

the Empire City Subway Company for an accounting and forfeiture of their charters, and with the definite purpose of acquiring the electrical subway ducts. Control of the subway ducts is the basis of the electrical monopoly on Manhattan Island. The lighting trust only became complete when it covered both illuminants—gas and electricity.

In 1886, when overhead wires were outlawed, the Consolidated Telegraph and Electrical Subway Company was formed to receive the wires of all electrical companies. It was to be entirely independent and to accept all as tenants on equal terms. It was organized under special act of the legislature to construct and maintain electrical subways in accordance with the terms of a contract entered into between the company and the city,—a contract which provides that when the net annual profits after paying expenses of maintenance and operation "shall exceed 10 per cent. upon the actual cash capital invested" then "the excess of such profit over the 10 per cent. shall be paid into the treasury of the city of New York." Another stipulation in the contract is that after January, 1897, the city through its Commissioners of the Sinking Fund may acquire the electrical subways by paying the actual cost thereof, and in case the earnings have not amounted to 10 per cent. per annum a further payment is to be made in addition to the cost not to exceed 10 per cent. on such cost. The company is required to keep full books and accounts and to file annual statements of costs, earnings and expenses with the Comptroller. At first the Consolidated Telegraph and Electrical Subway Company provided space in its subways for electrical conductors of all kinds. Later, the Empire City Subway Company was organized by like act and under similar contract with the city for the purpose of providing space for low tension and signal wires. The Consolidated Telegraph and Electrical Subway Company is owned by the Edison Company, the electrical combination covering the borough of Manhattan, which company is in turn owned by the Consolidated Gas Company which is under control of the Standard Oil interests. The Empire City Subway Company is owned or controlled by the New York (Bell) Telephone Company. As long as the Edison Company owns the Consolidated Telegraph and Electrical Subway Company no competitor of that company will be able to sell and distribute electric current on the Island of Manhattan. As long as the Bell Telephone Company owns the

Empire City Subway Company effective obstacles will be interposed in the installation of the plant of any corporation that conflicts with the Bell Telephone, the Western Union Telegraph, their subsidiaries or allies. Interference with the present status of these two subway companies therefore involves the active opposition of the most powerful financial interests in this country.

The annual statements showing cost of construction and income which the Consolidated Telegraph and Electrical Subway Company and the Empire City Subway Company have filed since their organization display an evident intent to defraud. If they are able to mislead the city as to the actual cost of construction a greater sum must be paid to acquire the property and a larger proportion of the annual profits may be retained before 10 per cent. is reached, the point where the city shares in the earnings. Moreover, the city has an interest only in the net earnings. Cost of maintenance and operation is to be deducted before net earnings are arrived at, and consequently the companies have an incentive to pile up running expenses. Before the suits previously referred to were commenced the books of the companies were examined. The construction account, according to the books of the Consolidated Telegraph and Electrical Subway Company in January, 1903, amounted to $7,492,-291.62. The construction account is, however, charged with $1,875,-000, the face value of the total outstanding issue of capital stock, while the actual cash received by the company for the sale of the stock was only $40,000. There were other items equally improper to include in a construction account which, according to contract, was limited to *actual cash* invested. The statement showing the cost to be seven and a half millions was as a matter of fact inflated to the extent of three millions. The Empire City Subway Company, the younger sister of the Consolidated Company, appeared also an adept bookkeeper. The Empire Company reported its gross earnings for 1902 at $839,204.77; operating expenses and maintenance, $350,441; net earnings, $503,762.84. It also came out that this Company in 1884 entered into contracts with two other companies for keeping in repair its subways. Under such sub-contracts for maintenance during the year 1902 there was paid the sum of $224,210. This is more per mile of subway than it costs per mile to maintain an average western railroad. Of course, the actual cost to maintain a permanent underground structure like an electrical subway is trifling. The

bookkeeping of the two electrical subway companies affords an example of private corporate management. The two companies are in the hands of leading financiers and business methods should surely prevail. Nevertheless, the books have been kept in a way to defraud the city with which they have contracted, and agreements have been made to divert earnings from their own stockholders.

Municipal bookkeeping is often criticised and condemned, but it would be hard to find a parallel in the books of any municipality to the sworn statements of officers of the subway companies filed with the comptroller of the city of New York.

When Colonel McClellan assumed office on January 1, 1904, there were twelve months of unsettled bills, no existing contracts for city lighting and some inconvenient litigation. But the monopoly was in the hands of friends and Tammany recognizes its obligations. Those interested on either side patiently awaited the outcome. It was a long wait. For eight months matters remained in *statu quo*. At last, in October a year ago, the deadlock was broken and the commissioner in charge abjectly surrendered to the monopoly. Tammany had kept faith and had done its utmost to pay its political debt. But an injunction prevented the settlement from being immediately carried out. Public indignation rose. There was a change all along the line and Mayor McClellan promptly assumed the position occupied by his predecessor. Commissioner Oakley's action was, however, so unaccountable that the state legislature determined to take a hand and named a committtee to investigate the whole subject.

The Legislative Committee found a "gross abuse of legal privilege in over-capitalization and in the manipulation of securities, for the purpose of unifying control and eliminating all possible competition" and also "the investment of millions in securities earning no dividends and intrinsically worthless solely for the purpose of securing monopoly of control." The committee further reported that the Consolidated Telegraph and Electrical Subway Company had violated both the letter and the spirit of its contract with the city. The committee also questioned the validity of franchises and doubted the extent to which the companies are entitled to use the streets of the city.

The important recommendations made by the committee were for (*a*) the creation of a state commission to supervise gas and elec-

tric companies; (*b*) the reduction of the price of gas to consumers from a dollar to seventy-five cents per thousand cubic feet; (*c*) the reduction in price of electric current to ten cents per kilowatt hour, and (*d*) the reduction of the price of street arc lamps from $146 to $100 per lamp per year. The committee upon submitting their report introduced bills in accordance with their recommendations. The main fight was made on the price of gas to general consumers. The test of strength came in the end on a bill for eighty cent gas. The lobby won after a close vote. Senator McCarren, the head of the Democratic organization in Brooklyn, delivered his forces in a body; Mr. Murphy, the leader of Tammany Hall, allowed his representatives to be picked up one by one as needed. The Democratic mercenaries supplemented the vote of bolting up-state Republicans whose constituencies are not affected by public opinion in the city of New York and who can always act against the interest of the city without fear of just retribution.

The bill reducing the price of electric current became law. The Edison Company now advertises to its customers that prices have been reduced thirty-three and a third per cent. The maximum price for gas sold to the city for public purposes was fixed at seventy-five cents per thousand cubic feet. The price was formerly ninety cents. Street arc lamps were brought down from $146 to $100 per lamp per year. As far as street lighting is concerned, the prices now fixed by the legislature are substantially what were offered to the lighting companies during the Low administration and contemptuously declined by the corporations. In addition a state lighting commission has been brought into existence and the price of gas to general consumers throughout the city will undoubtedly be lowered. Plans have been prepared for a municipal electric plant for lighting the streets and public buildings and the real estate has already been purchased upon which to erect the necessary power houses.

The 1905 election has been significant in New York as elsewhere and it is not likely that proceedings to acquire the electrical subways will be longer halted. Action may also be taken looking to the erection of municipal gas plants. However, the public will not be satisfied until every franchise has been examined into and its restrictions and limitations noted and enforced. Three years ago New York was at the mercy of a monopoly and to all appearances did not

care. Public sentiment has been effectively aroused by the way it has been defied and disregarded and now it seems that the city intends to be master of the situation.

Street Railways.

In 1884, after repeated effort lasting over thirty years, Jacob Sharp succeeded in obtaining control of New York's main highway, and Sharp and his associates were given a perpetual franchise to operate surface cars on Broadway. Sharp did not live long enough to pay the penalty exacted for the methods he had employed or personally to benefit from the grant, never afterwards overthrown, which he had obtained. But what Sharp filched from the public fell into able hands. About the celebrated Broadway franchise have been joined earlier and later grants for less important though necessary thoroughfares until there has developed a surface railway system under one management extending over the boroughs of Manhattan and The Bronx. The consolidation of surface lines in these two boroughs is, however, in competition with a combination of elevated and underground roads and in the subway development which has but commenced the city will gain by reason of the fact that two powerful rivals are competing for local transportation. The underground will also come in competition in Brooklyn where the elevated and surface roads have been brought together under one control. Perpetual franchises and the fact that franchises that might be redeemed are too costly for the city to buy back relieve the existing elevated and surface roads from danger of invasion of their immediate field by municipal lines; but the title to land beneath the surface has not yet been parted with and the community at large has even at this late day opportunity to benefit to the utmost in the direction and control of further underground construction.

MADRID: ITS GOVERNMENT AND MUNICIPAL SERVICES

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The activities of the government of the Spanish capital are a peculiar composite of ancient and modern institutions. The strong contrasts met on every side in local commercial life are mirrored in the conditions of the public service. In the former, motor wagons and oxen share the work of delivering merchandise, and in the latter we find a paid civil service in charge of one part of the administrative work of the municipality, while another—the collection of imposts—is farmed out to a private company.

Administrative Organization.

The central organ of the municipality—the *Ayuntamiento*—is elective but unsalaried. For representation in this council the city is divided into ten districts, in each of which five members are chosen by universal suffrage, making a council of fifty besides the mayor, who has a deciding vote only. The representatives are elected for a term of four years, one-half being retired at every biennial election, thus making the council a permanent body. Under its final supervision must nominally come all projects affecting the municipality. Sessions are held at the call of the mayor. The office of the mayor is the only one which is officially a charge upon the public treasury, and even the sum assigned to this office is not received as a salary, but as a "supplemental allowance" due to the extraordinary expenses necessary as the chief magistrate of the capital. The city provides for his use a stable and coaches, for the maintenance of which a yearly appropriation of over 35,000 pesetas[1] is

[1] Presupuesto del año, 1905. The peseta, at the present rate of exchange, is worth slightly more than fifteen cents.

required. In addition, a cash credit is granted amounting to 25,000 pesetas. Even with the allowance, however, the "honor" of becoming the city's chief magistrate is so expensive that it can be accepted only by the wealthy.

The lesser offices in the municipal government constitute a permanent service. The salary is generally low, but is supplemented by an allowance for house rent or by furnishing the houses directly. Further, due to the short department hours, those who wish are able to supplement their earnings by work taken outside their official duties. The official day is never more than five hours and in actual practice much shorter. Curiously enough a considerable number of clerks are able so to arrange their work that they can hold two offices under the government at the same time. Such a practice is strictly prohibited both by royal decrees and by the city regulations, but the objection is regularly avoided by having the second salary credited under the name of a "gratification for service," a subterfuge which has not been questioned by the Spanish courts. The permanent city official also acquires a right to a pension based upon the highest salary received, at any time after twenty years of service.

Street Cleaning.

With the exception of the protection of persons and property, the only one of the greater public services undertaken directly by the city of Madrid, is the cleaning of the streets. Up to 1894 the work was done in the most primitive manner and so small was the force employed that even in that year it was asserted that not one-tenth of the work assigned to a man for a day could be accomplished.[2] The general dissatisfaction induced the council to attempt the introduction of modern methods and a large investment was made in mechanical brooms and similar appliances.[3] This also did not satisfy the public, for though the conditions of the streets improved, the charge upon the treasury was altogether out of proportion to the actual service. In 1895 the service was placed in the hands of a Belgian company. The change brought admittedly the best service the city has ever had, but two years later, owing to alleged failure to fulfill some of its obligations, the company was

[2] Hauser: Madrid bajo el punta de vista Medico-Social, Madrid, 1902. Volume I, p 208 et seq.

[3] Ibid.

forced to surrender its charter to the city council. The administration by the council since that time has gradually improved, though even as late as 1899, 450 broommen formed the entire force and the conditions were far from satisfactory. Under the present city management the use of mechanical appliances has almost disappeared. On a few of the boulevards skirting the parks, horse-power sweepers are still regularly used, but with this exception the usual implements are hand brooms. In the work of sweeping there are employed a little over 700 men for the entire city. The brooms used are made by the men themselves from faggots supplied by the municipal authorities. In the greater portion of the city, after the first sweeping is finished, the streets are flooded with water every day to carry away the remaining dust. In the chief business district the care of the public ways is at present quite up to the modern standard, but in the poorer and newer quarters the badly paved and sometimes entirely unpaved highways make difficult proper cleaning and the small number of men assigned to these portions makes it impossible to do the work thoroughly.

The entire cost of the sweeping and flooding of the streets is only 574,875 pesetas ($86,215)[4] or a little over 15 cents per year per inhabitant. The small expenditure is due both to the neglect of the outlying quarters and to the cheapness of the manual labor employed. In the entire force of 949 men in the service there are but two—the paymasters—who receive a salary as high as fifty cents a day. Six hundred and fifty, including all the overseers, timekeepers and broommen receive 37½ cents or less and the 100 men who attend to the flooding of the streets receive but 22½ cents[5] per day. This wage represents the entire income, as these men are but day laborers and do not receive houses at the city's expense or a pension after a period of service.

The wages paid by the city for street cleaning are rather higher than those given in general for manual labor, as the average wage for unskilled labor is one peseta (15 cents) a day. The low wages are not, however, at least to the same extent as in other parts of Europe, counterbalanced by a low cost of food for partly due to the *octroi* the price of even the staples is relatively high. Potatoes, for example, cannot be bought for less than $1.00 a bushel, and "*gar-*

[4] Population of Madrid, 1905, 533,286.
[5] Budget for 1905.

banzas," the sort of chick pea which forms the chief ingredient of the daily food of the working classes, cost six cents a pound.[6] Meat, too, is so expensive that it is practically absent from the table of the laborer.

Disposal of Garbage.

The disposal of the garbage of the city is divided among two forces,—one public the other private. First there is the force administered by the city, which is charged with the disposal of both the street sweepings and the garbage. In practice, however, almost all of the latter is disposed of through people who adopt the collection of garbage as an industry. To engage in this business a special license must be purchased from the city, which allows the holder to ply his trade within a specified district. The service is rendered to the householders gratuitously, the only pay received for the work being the garbage itself. Those who engage in the business are generally aged men and women, who take the refuse away by means of donkeys carrying woven baskets. Only the absolutely worthless is thrown away, which, to these people, means a very small portion. Every rag is carefully saved, washed and dried; all the bones, scraps of paper and bits of straw find their way to different piles, all of which are marketed separately. Every scrap of bread or vegetable which can be made to serve as food for man or beast is put to use. Finally, what is left is sold as fertilizer. This is indeed an unusual state of affairs, for the disposal of the garbage, instead of becoming a charge upon the city treasury or upon the inhabitants directly, actually becomes the means of gaining a livelihood for a large number of people, and at the same time becomes a source of public income. The extent to which what may be called the "garbage business," has developed in the city may be seen from the fact that, in 1905, there were issued 600 licenses to engage in the work, contributing fees to the city amounting to 6,000 pesetas.

The relief, direct and indirect, thus afforded the public finances by this method of collection, is its only recommendation, for the refuse is uniformly carried in open baskets, from which the smaller particles are easily blown by the wind, and the disposal made of the vegetable parts is far from conducive to public health. The

[6] Compiled from the market quotations, for the year 1904, of the Heraldo de Madrid Rent, however, is low. Out of the 101,077 habitations in Madrid in 1902, the rent of 40,325, or almost 40 per cent. was equivalent to $3.00 or less per month. Hauser, page 494, Vol. I.

better portion serves as food for the collectors themselves, and the rest is regularly fed to chickens, rabbits and hogs kept in the small courts of the poorer districts of the city.[7] Such a method of disposal, it is needless to say, "constitutes a constant menace to sanitary conditions in normal times, and an excellent means of spreading disease in times of infection."[8]

Public Lighting.

The system of public lighting in the Spanish capital shows traces of the different stages of its development. It is still provided that in the courts of houses, and before the doors of all private dwellings, lamps "shall be kept lighted during those hours of the night in which the doors opening on the streets are unlocked."[9] In the poorer districts, too, the public streets are still lighted by kerosene lanterns. In fact, in all the outlying quarters, the lighting is in very poor condition, and the lamps so far apart as sometimes to make it impossible to see two from the same spot. The characteristic means of lighting in the more settled districts is gas, the expenditure for which constitutes almost four-fifths of the entire appropriation for the purpose. Electricity is as yet a comparatively new departure as a means of public lighting, indeed the latest edition of the public ordinances contains no regulations for its installation or use, either in private houses or on public property. The number of arc lamps on the principal streets is being rapidly increased, however, and plans are already in execution to introduce electric lighting in all the business portion of the city within the next two years. The fittings for all lighting are purchased and installed at the city's expense, but the supplies of both gas and electricity are furnished to the city through private companies, paid at a rate fixed by contract, and by special subsidies for terms of years.

Water Supply.

The water supply of Madrid is not, as in most cities, a service performed by the city or those licensed by it, but is a joint work

[7] The regulations of the city are commonly disregarded in this respect. See Ordenanzas Municipales, Madrid, 1903, p. 90.

[8] Hauser: Vol. I, p. 210; also preceding pages.

[9] Ordenanzas Municipales de la Villa de Madrid; 2d ed., 1903, Madrid. p. 35. The rule is uniformly disobeyed, however. Indeed, in the better streets, lamps over the doors would be wholly superfluous.

of the municipality and the central government. The local government indeed simply maintains the delivery of the water within the city limits. From the time of its foundation to the middle of the last century Madrid suffered under a constant scarcity of water Even at that date there were only fifty-nine public pumps and watering places within the city.[10] The *Ayuntamiento* had "seriously considered" increasing the water supply for over a quarter of a century, but the plans never got any further than the paper stage. In this state of affairs the central government undertook to supply water to the city, and irrigation to a large stretch of country at the same time, by a canal designed to conduct the waters of the Lozoya, a snow-fed river of the Guadaramma Mountains. The first project was completed in 1858, and Madrid received, for the first time in her history, an adequate water supply. Since then the growing demands of the rapidly increasing population of the capital, and the increased use of water for irrigation in the surrounding fields, have necessitated additional reservoirs, greatly increasing the supply of water. But even so the capacity has not always been sufficient for the needs in times of drought, and in 1896 and 1899 the government had to recommend that the use of the water for flooding the streets be discontinued.[11] The quality of the water, as tested at the reservoirs and rivers in the mountains, is said by chemists to be excellent. At its source it contains hardly any animal matter, and less than one-sixteenth of the amount of solids which are considered allowable in drinking water.[12] By the time the water gets to Madrid, however, although the amount of solids is still low,[13] there is an objectionable amount of animal and vegetable matter, due to the fact that the canal is uncovered for a great part of its length. This necessitates its purification by the usual methods of filtration, which renders the water of Madrid "safe and wholesome under ordinary conditions."[14]

From the first the method of adjusting water rates was open to many abuses, some of which continue even to the present day. The city government was granted a certain amount free, but under this

[10] Hauser, 228, also states In 1854 there were besides 421 private wells in the city.

[11] Ruiz Jiménes, Interpelacion al Ministro de Fomento, 11 Nov., 1899. See also Hauser chapter on water supply; Incharraundieta, Revista de Obras Publicas, 13 Feb., 1891, on the Canal of Lozoya.

[12] See Horacio Bentabo y Ureta Las Aguas de España, 2d ed., p. 183.

[13] Chemical analysis, in 1902, by Dr. César Chicote, Chief of the Chemical Laboratory Madrid, gave solid content as about 1-8 of that allowable.

[14] See Passim Chapter on Canal. Hauser.

permit it has used, and still uses, all it needs, which, with the development that has taken place, is now many times the amount to which it is entitled.[15] Many private persons were allowed to acquire free use of the water, an abuse against which steps were first taken only two years ago.[16] Until recently the water rates were regulated according to the number of faucets, no matter what the quantity used. A change to the meter system is being made at the present time, the charges being from five to seven and a half centavos per cubic meter. Where meters are not in use the water rate is based on the yearly rental of the dwelling.[17]

Street Railways.

Originally the tramway system of Madrid was in the hands of ten distinct companies, who furnished a mule-car service from the outlying quarters to the central plaza of the town—the Puerta del Sol. The radial plan of the system, which came to be a feature of the organization in the early days, is still maintained, almost without exception, in spite of the fact that in some cases a different organization would much better serve the needs of traffic. At present all the lines converging in the centre of the city are managed by one company, the only remnant of their former independence being the charters regulating the relations of the different divisions with the city. Only one small company serving the outer quarters still maintains a real independence. The charters under which the street cars are operated at present are the same as were formerly granted for running the lines of mule cars, except that they have additional clauses allowing the owners to change the motive power. Electricity has not indeed superseded mule power entirely, and even on the central line the old-fashioned cars are used to supplement the more modern service on occasions when large crowds must be accommodated, such as the days of the bull fights or the more popular church festivals. The maximum fares are fixed in the charters, and range from five to thirty centavos. None of the concessions are held in perpetuity, the longest being for a term of sixty years. In all cases a small annual payment is made to the city, but the amounts in most

[15] Sr. Incharraundieta, Revista de Obras Publicas, Feb., 1902.

[16] Royal Decree of 6th Feb., 1903. The regulations of 1903 also prohibited the granting of any free water rights in the future. Reglamento para el Servicio y Distribution de las Aguas del Canal de Isabel II, Madrid, 1903.

[17] Royal Decree of the 14th of July, 1905.

cases are the same as specified in the original contracts when mule power was used, and the entire income of the city from all the lines amounts to but very little over $10,000 per year.[18] The city has uniformly reserved to itself numerous rights of control over the tramways. Among these may be mentioned, the setting of the time of departure for each car, the speed at which those drawn by mules may go, and the determination of the number of persons to be carried in each car, including a provision that when all the places are filled no more passengers must be allowed to enter.[19]

Food Inspection.

To provide for the purity of the food of the inhabitants, the city council has greatly extended public supervision. For testing the quality of all food entering the city a special inspection service is kept at all the gates, and a public laboratory is charged with the analysis of all suspected products. As an example of the minutiae into which the regulations enter in some cases, the rules affecting the sale of bread may be taken. First, a special license must be secured from the council. All bread destined for sale must contain only wheat flour, yeast, common salt and water. The addition of anything else, even though it in no way alters the nutritive qualities of the product, is punished by fine. The loaves must be made in standard sizes, and the third report of short weight results in the revocation of the license. Ovens must have a certain size and location. All bread must have the name of the manufacturer stamped upon it, and the price at which it is to be sold. Finally, a regulation which is explained by the political history of the capital provides that "a supply of flour must be kept on hand sufficient for six days, with the object of tiding over any conflict that may occur.[20]

The supervision of the meat supply extends not only to the inspection of the quality at the gates, but all slaughtering in the city must be done in the municipal slaughter houses. The private slaughter of animals to be offered for sale subjects the offender to fine and confiscation of the animals killed. The publicly administered slaughter house is by no means an institution of recent origin in Madrid. An establishment of a similar character is said to

[18] Presupuesto del Año 1905.
[19] Ordenanzas Municipales. Pp. 29–33.
[20] Ordenanzas Municipales, 53–59.

have been maintained as early as the fifteenth century,[21] but its development on a large scale, to the exclusion of private undertakings, dates from 1855. At present two separate establishments are maintained, one for cattle, sheep and goats, the other for hogs. It may be mentioned that the meat of horses and mules, in contrast to the practice in many cities in Northern Europe, cannot legally be sold for food in Madrid.[22] The purchase and sale of the animals to be killed is entirely free and independent of any supervision on the part of the government, which confines itself to the inspection of the animals and to the killing, and dressing of the meat. For this service there is a permanent force of employees. The charges for killing vary from four pesetas for cows to 1½ pesetas for goats. The inspection of the animals by the government is thorough, and the entire establishment for handling cows, sheep and goats is thoroughly modern in sanitary arrangements and administration. As much cannot be said of the department for hogs,[23] which is located in a building far from suited to the purpose. A curious regulation limits the slaughter of hogs to a definite season—the one hundred and forty-two days following the 30th of October. It is considered that the consumption of fresh pork at other times is "dangerous to the health of the community."

Municipal Pawn Shop and Savings Bank.

Two very interesting and successful municipal establishments now placed under one management are the municipal pawn shop and savings bank. In the pawn shop two classes of loans are issued, on clothes and jewels and on public securities. The rate of interest charged is but one-half of 1 per cent. per month, as contrasted with 2, 4 and even 6 per cent. charged by private houses. If the goods are not redemed they pass to the salesrooms, where they are sold by public auction, and if more than the amount of the loan is realized the balance is returned. The loans on public securities are only made with the balance not demanded by the other business and never exceed 80 per cent. of the market value. The plan has been of great assistance to the classes for which it is intended—the poor in

[21] Hauser, p. 306.

[22] Hauser and Ordenanzas Municipales.

[23] Hauser, 306: "It is an anachronism of our time and a menace to the health of the inhabitants."

temporary distress, and the goods are redeemed in over 90 per cent. of the cases.[24]

No less successful is the municipal savings bank. So popular has the institution become that on account of the unsatisfactory condition of the national finances it has become impossible to find a satisfactory use for the money offered to its care. The rate of interest to be guaranteed has had to be reduced and the amounts of individual deposits limited to 5,000 pesetas. Notwithstanding the restrictions the number of depositors has grown steadily and during 1904 reached 497,295.[25]

Taxation.

Undoubtedly the most remarkable feature of the government of Madrid is the method of collection of the municipal taxes. Under the existing laws only the central government can levy taxes on real and personal property, so the city has but a limited field from which to draw its income. Practically all the city taxes, now amounting to about $4,800,000 a year, are derived from fines, commercial licenses and taxes on fuel and food. Commercial licenses are extended over almost every branch of business, even down to permits to sell small articles in the streets, permits to collect rags, and taxes on business signs and extent of window display. All such imposts together, however, constitute but 12 per cent. of the yearly income and the chief reliance must be the tax on food stuffs.[26] The history

[24] ——— "Segundo Centenario de la fundacion del Monte de Piedad de Madrid." Madrid, 1902.

[25] ———" Memoria y cuenta general del Monte de Piedad y Caja de Ahorros, Madrid, 1905.

[26] It is, perhaps, needless to point out the inequality of such a method of taxation. In a city like Madrid, where, it is asserted, almost one-tenth* of the population live in a state of almost hopeless poverty, the results of any *octroi* system must be especially bad. Up to the present, however, even the bare necessities of life have been subject to the imposts. The rates have been very high, as may be judged from the following quotations: "Imposts to be exacted by the Compañia Arrenditaria" (the money is given in American equivalents). Chickens, 5 cents each; veal, 4 cents pound; fish, 3½ cents; flour, ¼ cent; "Garbanzas" (chick peas), ½ cent pound; milk, 1 cent quart. The rate on live animals is: Goats and sheep, 70 cents each; hogs, $5.20; cattle, 2–4 years old, $11.20; cattle over 4 years, $15.00.† In the near future it is proposed to remove from the list a few of the necessities of life, chief among which are milk, flour, bran and sugar. The effect of such taxes on the food of the poorer classes may be judged from the following statistics for 1904: The total consumption of prepared and salted meats in the city amounted to 1,200,000 kilograms, or about four pounds per inhabitant, while the average consumption of fresh meats of all classes reached only 98 grams per person.‡ The

* Hauser, Vol. I, p. 297. 52,000 in 1902.

† Compiled from Presupuesto del Año, 1905.

‡ Compiled from the Report of the Compañia Arrenditaria by Fisher, Representative in the Ayuntamiento.

of the management of these imposts in Madrid is anything but a creditable one. Up to 1897 the city was engaged in a futile attempt to secure honest administration of the imposts by public officials. Every year loud protests were raised against the management because favored persons, especially influential members of the city council, were allowed to bring in goods without paying the legal dues. In this way such decided advantages were given to a few merchants that competition with them in the market was practically impossible. Further, at the end of the administrative year, the city was invariably confronted by a shortage in the returns which no raising of the imposts was able to overcome. As a consequence the city debt was steadily growing in spite of the increased tax rate on businesses and food stuffs. The situation finally became so intolerable that it was decided to give over the management of the municipal taxes on food and fuel into the hands of a private company. This form of management has been in use since 1897 and the question of its continuation for another period of five years is now the subject of a vigorous campaign in all parts of the city.[27]

The system amounts in fact to no less than a reappearance of the old Roman method of farming the taxes, with the exception that the *rate* of taxation is fixed. The right to collect the imposts is sold at public auction, and the bidder makes all he can by instituting a minute system of examination and a rigorous enforcement of the limit of the imposts allowed in his contract with the government. The management has been so inquisitorial that all classes are united in the opinion that a change at least in details must be made. Against the renewal of the contract protests have been raised by almost all the organizations of Madrid, including the Mercantile Union, Chamber of Commerce and all the trade unions. There is, however, a large conservative class which, though it realizes the exasperating character of the present regulations, still hesitates to take the step which might plunge the city finances into the chaotic state in which they were when the taxes were managed by public officials. It is insisted that the present expedient has proved a success in one way at least; it

high tax on milk, too, brought in its train lamentable conditions. The price of that brought into the city was so high that it made it profitable to keep the animals in the city and feed them on food hauled in from the country. In 1902 there were 232 such stables maintained in Madrid. The effects of the necessary confinement of the animals was revealed by an investigation of 215 samples of milk among which 170 were found to be impure.§

§ Boletin del Laboratorio Municipal de Madrid, 15 Jan., 1902.

[27] The date set for the beginning of the next term is Jan. 1, 1906.

gives the council a reasonably fixed basis upon which to calculate the municipal income, and the city has received much more in actual cash through means of the Compañia Arrenditaria than it ever did during the public management, notwithstanding that the rate of imposts has been lower. On the other hand, the public treasury has admittedly paid very dearly for the management of its finances by the private company, the earnings of which, though not made public, are admitted to be very large.

The introduction of the use of the Arrenditaria in municipal government gives Madrid a distinctive but hardly enviable position among modern cities. At best, the solution brought in this way can be justified only under the head of political expediency, but the repeated failure to organize a public service capable of honestly administering the local taxes cannot help but throw a strange and unpleasant sidelight on the civic life of the Spanish capital.

Further, the method of taxation in use hampers the development of all the services of the city. At present taxation does not reach the real wealth of the city except by insignificant indirect imposts. Therefore, by a process of exclusion, the city is forced to rely upon the taxes on articles of daily consumption, and every increase in the appropriations for public services must be overwhelmingly at the expense of the laboring population. The evils resulting from such a situation are not confined to Madrid alone, but are felt generally throughout the peninsula. One of the changes most generally advocated by the press of the country is the passage of laws which shall provide for greater municipal independence in matters of taxation. Until such action is taken it cannot be expected that Madrid can command the resources to bring her public services up to the standard demanded by her population and her position as the capital of the kingdom.

THE PROBLEMS OF CITY GOVERNMENT FROM THE ADMINISTRATIVE POINT OF VIEW

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Much has been written during recent years about the defects of American municipal government. And all sorts of remedies have been proposed, and many of them put to the test of experience. Discussion and agitation, followed by legislation and the election of better officials, have wrought great improvement in many communities; and even the most recent disclosures of intolerable conditions have been signs of an awakened public opinion and the direct cause of uprooting some evils. But no one has suggested that we have as yet reached a state of perfection in municipal government, or that we are in any immediate danger of attaining such a state.

It is not the purpose of this paper to discuss all of the problems that have arisen in connection with our municipal affairs, nor to propose remedies for all of the difficulties and evils that still exist. No attention will be given to such questions as the scope of municipal functions or the political substructure underlying the organization of government. The task here undertaken is to consider only those features of the complex municipal situation on which a student of public administration may be supposed to be able to throw some light.

These features may be considered under two main heads: (1) the problems connected with the local machinery of municipal organization and the inter-relations of local officials; and (2) the problems connected with the relations of the city to the government of the state. Under each division, the existing arrangements will be briefly summarized, their defects will be pointed out and the various remedies hitherto applied, and plans will be suggested for future action. It will be admitted frankly that no scheme of purely ad-

ministrative reform will offer a complete solution of all the municipal problems; but it is a false logic which deduces from this the belief that administrative reform is of no importance; and this paper is written in the conviction that some of the fundamental difficulties are administrative in character, and that administrative reforms are among the essential conditions of successful municipal government in this country. The basis for the discussion of administrative reforms will be found in a municipal program, adopted by the National Municipal League; but amendments to this plan as seem desirable will also be suggested.

I. *Local Organization.*

One of the first facts that becomes obvious to any student of municipal government in the United States is the confused and complicated variety of local administrative arrangements, and the lack of consistent principles of municipal organization, not only in the cities as a whole, but even in most of the cities taken individually. Starting with a simple system of council government, this was first altered about 1820 by a limited application of the theory of the separation of legislative and executive powers in the popular election of mayors; while subsequently (since 1850) the division of municipal powers in the hands of separate and largely independent authorities has been developed to a remarkable degree, without any guiding principle and in a way that defies generalization or classification. In more recent years, some of our cities have secured a system of municipal organization based in part at least on some fundamental ideas. These have been for the most part a stricter application of the theory of separation of the legislative and executive powers, with the concentration of the latter in the hands of the chief executive, as in the national administration; but in a few cases the centralization of authority in the hands of the mayor has tended towards the abandonment of the theory of separation.

There are two factors in American municipal organization which are practically universal, and may therefore be taken as the necessary bases for any systematic scheme. These are a council and a mayor, both elected directly by popular vote. Washington, D. C., is the only city which has been an exception to this rule for any considerable length of time; and the administrative arrangements

there could not be well applied elsewhere, even if they formed in themselves a correlated and consistent scheme of organization.

The Council.

When we turn to examine the structure and powers of these two common factors, we find ourselves at once in the midst of diversity and often of confusion. The typical form of the council is that of a single body elected by wards or districts for a one or two year term. Many of the large cities—six out of the twelve with over 300,000 population—have a bicameral council. In many of these the smaller branch of the council is elected from the whole city instead of by districts; the cities in Ohio, Indiana and Iowa and some others have a small number of councilmen elected at large, in addition to the ward representatives; and in San Francisco and a few other cities the whole membership of the council is chosen at large. In most American cities council members now receive some compensation; but the older rule of gratuitous service still prevails in New England, Pennsylvania, and is frequently found in Southern cities and occasionally in other parts of the country.

Almost every one of these elements of council organization has been the subject of criticism. It is pointed out that a single council elected by wards, even if successful in representing the local interests of the various districts, makes no adequate provision for the general interest of the whole city. In addition the district system offers other difficulties in cities, and especially in large cities. The ward limits are artificial and seldom represent any natural social grouping of the population. Frequent changes of boundaries and the constant changes of residence on the part of the people hinder the development of a common social life within the political district. While even in the face of readjustments of boundaries, population movements go on so rapidly that there is seldom even the crudest approximation to representation in proportion to population; and in the largest cities at least the districts over-represented are those in the control of the worst elements in the population.

A bicameral council with one house elected at large might seem to meet some of these objections; but in fact, as generally established, it simply adds another body chosen in a way which prevents the representation of different interests, and thus weakens the de-

liberative character of the council. In practical experience, too, it has not been found that the bicameral system is in any way necessary, or that it secures any improvement in the management of municipal affairs.

In reference to salaries, it is urged on the one hand that no payment induces aldermen to accept or to demand compensation for their services in an irregular way, which often becomes either a system of bribery or blackmail; and on the other hand it is said that any salary makes the post one for which impecunious politicians will enter into active competition.

The plan of the National Municipal League recommends the election of a single chambered city council on a general ticket, although providing for the possible retention of the district system in cities of over 25,000. Does not this go too far in ignoring the idea of local representation? It may be admitted that the present ward system is usually unsatisfactory; but are there not in every city sectional divisions with tolerably distinct municipal interests and some elements of common social life? Such divisions ought to be recognized and emphasized in the political system. They should have fairly permanent boundaries; and the district for electing council members should be also a district for other municipal purposes, such as schools, police, fire brigade and the like, and indeed still further for larger political interests, such as the election of members of the state legislature. By thus concentrating the political interests of the same people in a common district, the germ of social unity and local spirit could be highly developed. Such districts would ordinarily be larger than city wards at the present time, and the internal transfers of population within the city would be more largely within the district, and would thus more often be made without requiring any readjustment of political relations. Moreover, as each district would have several members in the council, the exact number could be adjusted at frequent intervals in proportion to the changes in population, without changing district boundaries.

Besides such a district system, the plan now in use in several states of the Middle West, of electing a small number of members of the council at large also seems desirable. Such members would probably be more widely known throughout the city, and likely on this account to be men of large ability and character, and also likely to secure better consideration for the questions where local interests

should give way to more general views. It may further be noted that these arrangements are adapted to various forms of minority and proportional representation; but even without this feature the district members will undoubtedly include representatives of different shades of political opinion on various questions of public policy, and the council will thus continue to be a body adapted to deliberation and discussion.

A system of council organization somewhat similar to that outlined was in operation in New York City from 1873 to 1882. And it is perhaps worthy of note that during this decade there was less criticism of municipal government in the metropolis than in any other period of equal length for the last fifty years, and that the abandonment of the system was due, not to any public dissatisfaction, but apparently for the sole purpose of strengthening the system of party machinery and increasing partisan influences in the municipal government.

An examination of the powers of municipal councils involves two distinct—or at least distinguishable—topics: the subject matter of council activity, and the methods of council action. In both fields the diversity of detail and the difficulty of generalization is enormous. It may, however, be said, under the first head, that municipal councils generally have some power in reference to the protection of persons and property and the construction and management of local works of public improvement, and often they have some control over public charity; but seldom do they have much direct voice in reference to public education. In any case the authority of the council is strictly limited to the specific grants made by the state legislature. These legislative grants are not given in general terms, but are minutely enumerated, and the courts have uniformly applied the doctrine of strict construction to all such grants. In consequence, while in the smaller cities the councils have ordinarily about as much authority as they wish to exercise, in the larger cities where the need and demand for municipal action is much greater, the councils are constantly appealing to the legislature for larger powers.

Methods of council action may be considered as legislative or administrative. In their constitution, municipal councils are organized on similar principles to our legislatures; and this idea has been retained in the plan proposed in this paper. And in a vague sense the councils have been considered as the body in the municipal gov-

ernment corresponding to the legislatures in the state and national governments. But it must be said that the law-makers have never thoroughly recognized this. Indeed, the judicial doctrine laid down as a general rule, that all legislative power not granted to Congress is vested in the state legislatures and may not be delegated, is in direct contradiction to the idea that the councils are legislative bodies. Nevertheless, some state constitutions have expressly provided that local legislative power may be delegated to local bodies; while the body of statutory legislation on municipal government does in fact give a certain amount of legislative power to municipal councils.

Legislative power as exercised by Congress and the state legislatures seems to consist of three main elements: the power to enact laws applying to the community at large; the power to organize a system of officials and regulate their functions, and the power to levy taxes and appropriate money to maintain the administrative system thus organized. Municipal councils have the first of these to a limited degree, in their power to enact local ordinances and by-laws on specified subjects. But such ordinance power is sometimes given to administrative authorities such as boards of health, police commissioners and park boards. They have the third class of powers also to a more or less limited extent. But they have in most cases only a most restricted authority in reference to powers of the second class.

As to the power over administrative organization, municipal charters usually provide so completely for all the officials of any importance, that the municipal councils find little scope for further action except in the creation of minor positions such as milk inspectors or sealers of weights and measures; and in many of the larger cities this power of establishing minor offices is vested not in the council, but in an authority supposed to be administrative,—while in the new Ohio code such power has been given to the boards of public service in every city in that state. In this respect city charters have carried to an absurd extreme a feature of our state constitutions, where these have departed from the altogether excellent model laid down in the national constitution.

One state stands out as a notable exception to this rule. The municipal corporation act of Illinois, after providing for a comparatively small number of officials in every city, authorizes the municipal council by a two-thirds vote to establish such other offices

as it deems necessary, and to discontinue any of these offices by a like vote at the end of a fiscal year. Thus in the city of Chicago such important offices as that of comptroller and commissioner of public works have been established by council ordinance.

In the exercise of such legislative powers as they have, municipal councils are generally restricted by the veto power of the mayor, in the same way as Congress and most of the state legislatures are restricted by the veto power of the President and governors.

In most of the smaller cities, and in New England and Pennsylvania even in cities of considerable size, municipal councils still retain and exercise many administrative powers. To some extent these powers are exercised by the council as a whole, by the issuance of specific orders to agents and employees, and by the appointment of officials and their subordinates. In other respects, such powers are exercised immediately by council committees, who have direct supervision over the municipal employees. Even in the larger cities where these powers are no longer in the hands of the councils, appointments to office are effective only after being confirmed by them, this control over appointments being sometimes used to secure some patronage for the individual members. In Chicago and many of the large cities, as well as the smaller ones, the council through its Finance Committee is the controlling factor in initiating proposals for expenditure as well as in passing the appropriations; but in the larger cities of New York state and some other cities the budget is prepared by a small administrative board, and the council is not permitted to appropriate more than the sums provided in the budget.

Under the program of the National Municipal League, the scope of municipal action would be vastly increased. The ordinance power is to include general authority in reference to the "good government, order and security of the city and its inhabitants." Broad grants of power to deal with public works, institutions and certain commercial undertakings are given; and these are made effective by a comprehensive grant of taxing power. The council is made the general legislative authority in all matters, subject, however, to the veto power of the mayor; and with detailed restrictions in reference to granting away rights and franchises in the public streets. The council, too, is to have almost complete power in organizing the administrative departments. On the other hand, the council cannot appoint to any office, except that of comptroller; and it seems to

be intended that the council shall have no powers of direct administration.

Several recent municipal charters have provisions along the line of those recommendations. The general law for the four cities of the second class in New York state vests the legislative power and only the legislative power in the city councils. A more emphatic statement is placed in the new charter of Portland, Ore.; and another in the latest (1900) charter of the city of New York. But it would seem that these clauses refer only to the ordinance power; and the equally important power of organizing administrative offices has apparently been effectively granted only in the law of Illinois previously mentioned.[1]

It is not entirely clear that all municipal councils should be restrained from exercising any administrative functions. In small cities where the amount of municipal work is limited, there is no absolute necessity for separating legislative and administrative functions, and council committees may well discharge the latter duties and save the expense of additional officials. In large cities, the distinction is much more important; the increased volume of business makes too great a demand on the time of aldermen than can safely be demanded from the kind of men who ought to be members of the councils; and better administrative management can be secured by specializing that work in the hands of experts in the different fields who can be paid to give their whole time to the municipal service.

"With a careful separation of powers the legislative function can be entrusted to typical everyday Americans from middle life who yet have broad enough training to enable them to see the interests of the city as a whole. In most cities strictly legislative duties would not seriously interfere with a man's regular business, and therefore the councilmen need not either be rich or receive high salaries from the city."[2]

The Mayor.

The mayor has the longest pedigree of any of our American public officers. As far back as the sixth century we hear of the

[1] In Michigan where the state constitution specifically authorizes the legislature to confer local legislative power on city councils, the Supreme Court has held that this applies only to the power of passing general ordinances, and that the legislature may not delegate to city councils the power of organizing administrative departments.

[2] Wilcox: The American City, p. 306.

mayors of the palace in the Frankish kingdoms, the last of whom, Karl Martel, was grandfather to the Emperor Charlemagne. A few centuries later the name appears again both in France and England as the chief officer of a city, and in that capacity it has come down to our own time. American mayors occupy an intermediate position between the purely honorary and social dignity of the English office and the professional public administrator of Germany, with a tendency in recent years to confer on the officer legal powers in some respects analogous to those of a mayor in France. In this country the office is filled by direct popular vote, for terms varying from one to four years. The one year term is too short; it should be at least two. In most cities of over 25,000 population, and in many smaller cities, the incumbent receives a salary,—in cities with over 100,000 population, usually from $2,000 to $5,000 a year, and in five cities from $10,000 to $15,000.[3]

Although generally considered as primarily an executive officer, the mayor has always had important duties in relation to the council and legislative matters. In small cities, he is in most cases the presiding officer of the council; and has this position even in such important cities as Chicago, Providence and Grand Rapids. In the last named he also appoints the committees of the council. But in most of the larger cities this connection of the mayor with the council has ceased. On the other hand, in all the larger cities and many small cities, he has a limited veto over the acts of the council, which in many cases includes the power to disapprove items in appropriation bills, sometimes includes the power to disapprove separate provisions of any ordinance, and in a few cities is made more effective than the veto power of the President and state governors by requiring a larger vote than the traditional two-thirds to override his disapproval. In the cities of New York state, the mayors have an additional legislative power to disapprove special acts of the state legislature applying to their cities, this disapproval operating as a veto unless the legislature repasses the bill.

In respect to administrative powers, the principles of executive authority employed in the national government have been but slowly and partially applied to city mayors. In many small cities, and in some of considerable size (the latter mostly in New England and Ohio) the mayor has even yet little or no appointing power and no

[3] Racine, Wisconsin, seems to be the largest city where no salary is paid.

effective means of controlling the other officials; and has thus still less relative authority than most of the state governors. In other cities, including most of the larger places, he now generally has powers analogous to those of a state governor: the right to nominate to the council for the principal positions not filled by popular election, and some power of removing officials for cause. In Illinois cities, the scope of this limited power over appointments may be greatly enlarged as the council creates new offices; and in the same state the mayor has also a large power of removal which gives him effective means of control over the other officials and strengthens his influence in appointments. In Chicago the mayor's power of nomination extends to most of the important positions, and in practice has been equivalent to the absolute power of appointment. In Cleveland for twelve years (1891-1903) the mayor had a very extended power of nomination, which in practice operated to give him complete control over most of the important positions.

During the last ten years, in a number of important cities, the mayor's power of appointment and removal has been still further increased. The mayors of the six largest cities in New York state, of Boston, of all cities in Indiana, and of a few other cities have now the sole and absolute power of appointing the heads of most of the municipal departments; and in the same cities, with the addition of the four largest cities in Pennsylvania, mayors have the power of removing at any time the appointed heads of departments. Under this system the executive authority and responsibility is concentrated in the mayor, except for a few officials still elected by popular vote.

In the program of the National Municipal League, this latest development of the mayor's authority is adopted, and indeed strengthened by making the mayor the only elective executive officer, and extending his power of appointment and removal to all administrative officers except the comptroller. At the same time the mayor's limited veto power over council ordinances is retained; and he is also to prepare and submit the annual budget.

This concentration of executive authority in the hands of the mayor has been criticized, as enabling that official to use his power to build up a "political machine." This was the main argument of those who planned the recent Ohio municipal code, which relegates the mayor to a position of "innocuous desuetude," yet the system there established was that which has enabled one of the most notori-

ous "machines" in the country to be maintained in the city of Cincinnati. Every system of appointment or election can be abused in this way, so long as positions in the municipal service are given as rewards for campaign work. The complete plan of the National Municipal League will restrict the possibility of this abuse to small limits by the merit system in filling all subordinate positions; and it is felt that the importance of the principal offices and the responsibility of the mayor's power will in most cases secure the appointment of competent heads of departments.

One writer in a very recent article advocates a still further development of executive authority.[4] He holds that the organic defect in municipal organization "lies in the fact that the executive and legislative departments, in addition to being separately constituted, are also disconnected, and this very disconnection has prevented in practice the degree of separation in their functions which their integrity requires." His remedy is to give the executive complete legislative initiative, with the right to demand a vote on proposed measures.

Administrative Departments.

Our discussion of the officials who deal with particular branches of municipal administration must be very brief. Any description of existing arrangements is out of the question, for the situation may well be described as chaotic:—a chaos in regard to the forms of organization, the terms of service, the methods of election or appointment, and the relations of the various officials to the council, to the mayor and to each other. A large element of variety in some of these respects is almost inevitable: the number of officials and separate departments must vary with the size of the city and the scope of municipal functions; and the extent to which unsalaried service can be advantageously secured can hardly be fixed by a hard and fast rule. But the existing confusion goes far beyond what is either necessary or excusable; and is the cause of constant friction and dissatisfaction in municipal operations.

Something may be said about conditions in those cities where a more orderly system has been introduced. Most of the cities where the mayor's power has been increased, place single salaried commissioners at the head of the various departments, and

[4] H. J. Ford, in Annals of American Academy of Political and Social Science, March, 1904.

some other large cities, *e. g.,* Detroit, have also partially introduced this same feature. But in every case some branches of administration remain under the supervision of boards, and there is no fixed rule as to which departments are under boards and which under single commissioners.

In most cities the various municipal bureaus form a heterogeneous list, frequently numbering from twenty to thirty or more, with no official connection even between those whose duties are most closely related. But a number of cities have made progress in grouping related offices into important departments. Thus in St. Louis the heads of the various public works bureaus, including the parks, streets, sewers and water bureaus, are brought together in the board of public improvements; and in the larger cities of New York and Pennsylvania the public works department has been made to include most of the bureaus of this kind. In Ohio cities, under the new code, the department of public service embraces not only the management of all the municipal engineering works, but also the charitable and correctional institutions, going too far in combining unrelated offices. Another development has been in establishing departments of public safety, bringing together the police and fire brigades and usually also the offices for sanitary and building inspection. This department is now to be found in some of the larger cities of New York, Pennsylvania and Indiana, in all the Ohio cities, and occasionally in other places.

Most advance in this direction is to be found in the four cities of the second class in New York state. Here practically all the municipal service is organized in seven main departments. This plan seems to have been taken, with some modifications, from the so-called "federal plan" of Cleveland (1891-1903); and another feature of that plan is authorized in the New York cities, viz: the periodic meetings of the heads of departments with the mayor, as a cabinet for the discussion of questions of common interest to secure agreement on harmonious lines. In Cleveland the "cabinet" was constituted as a board of control with important legal powers; but in the New York cities it has been left to develop its own place in the municipal system.

In the new municipal code of Indiana (1905) from five to eight departments are established in cities of over 10,000 population, and provision is made for monthly meetings of the mayor and the heads

of departments. This "cabinet" is authorized to adopt rules and regulations for the administration of the departments, including rules governing admission to the subordinate municipal service.

The plan of the National Municipal League does not provide in detail for the administrative departments; but leaves these to be organized by the council or by the special locally framed charters according to the needs of the city. But there is certainly need in most cities for more careful attention to this problem of departmental organization; and the larger cities of the country will find the plans that have been mentioned well worth their attention.

Subordinate positions in the municipal service in most cities are filled and held at the pleasure of the changing heads of departments and bureaus. And one of the most serious abuses in municipal administration has been the frequent changes in such positions for partisan and political purposes. In the cities of Massachusetts and New York, and in Philadelphia, Chicago and New Orleans the system of open competitive examinations has been established. And in some other cities the police and fire departments are recruited under a merit system. There can be no question that the principles of civil service reform should be thoroughly applied to the whole municipal service.

II. *The City and the State.*

Of equal importance with the problem of local organization are the problems of the relations between the city and the state. For in the United States, as in all other countries, cities are not independent political communites, but districts in a larger political area and subordinate in various ways to the higher governmental authorities. In the United States this subordination is to the government of the states. There are many evidences that the prevailing relations between the city and state authorities are unsatisfactory, and the remedy most widely suggested is a demand, usually vague and inarticulate, for municipal "home rule." Some attention may therefore be given to explaining the present arrangements and to presenting a definite plan for a better system.

At the outset it may be noted that in our fundamental political document, the national constitution, cities are in no way recognized as having any existence; and that under the principle of residual powers, the cities are created by the states, which have complete

power of control over them, and may even destroy their political existence.[5] But the powers of the states are for the most part exercised by the state governments; and these are established and limited by the state constitutions. The more practical question is therefore as to the relations of the cities to the state legislatures, the state executive and administrative authorities and the judiciary.

Legislative Control.

In the absence of specific limitations in the state constitutions, the power of the legislature in most states is held by the courts to be practically co-extensive with the power of the states. A municipal corporation has only such powers as are expressly enumerated or clearly implied in its charter or the general laws; and the legislature "may, where there is no constitutional inhibition, erect, change, divide and even abolish them at pleasure, as it deems the public good to require."[6]

In Michigan, however, and to a less extent in Indiana this doctrine has been somewhat modified; and the courts have held that the legislature may not vest distinctively local powers, such as management of public works, in state officers, and may not compel a city to undertake local improvements without its consent. More generally, too, it has been held that the constitutional guarantees for the protection of private property, prevent the legislature from confiscating the private property of a city. But with these exceptions, restrictions on the power of the legislature must be based on specific constitutional provisions.

State legislatures, in the exercise of this power over cities, have generally granted the authority to elect local officials; but have regulated in minute details the organization of the municipal government and the powers and functions of the municipal officials. In earlier days, and even at the present time for most small cities, statutes on municipal government have usually been enacted only on local initiative and, generally at the request of local members of the legislature without consideration by the whole legislature or any public notice. As a result, there has accumulated a great mass of special legislation in most of the states, overloading the statutes with heterogeneous and conflicting provisions, which make almost

[5] U. S. *v.* B. & O. R. R. Co., 17 Wall. 322 (1872).
[6] Dillon Municipal Corporations, I, 93.

impossible an intelligent understanding of municipal government and dissipate and confuse responsibility for local affairs.

In most of the states containing large cities, legislation for their government has been affected by other considerations. Charters and charter amendments are passed not only without public and local discussion, but also, in many cases, against the wishes of the local officials and local members of the legislature. Sometimes such legislation has had ostensibly at least, the immediate object of remedying some municipal delinquency; but in many cases the most effective motive has been to secure some partisan advantage for those in control of the state government, when the city officers belong to another political organization; while in some instances such legislation has been enacted through the worst sort of political jobbery, to confer privileges which could not be secured from the local authorities. By such means acts have been passed substituting state appointed officials for local officers, compelling cities to carry out expensive and unnecesary undertakings, and granting franchises in the public streets with little or no compensation to the city. The legislatures of New York, Pennsylvania, Ohio and Missouri have been most active in these methods of interference; but instances are not lacking in Massachusetts, Illinois, Michigan and other states.

It is over fifty years since the attempt was begun to remedy the evils of special municipal legislation by constitutional provisions prohibiting such legislation. The second constitution of Ohio, adopted in 1851, contained several clauses intended to abolish special legislation on municipal government; other states followed this example, at first slowly, but more rapidly since 1870; and at the present time about half of the states forbid the legislature to enact special municipal legislation. These provisions have, however, had only a partial success. The method of detailed legislation enumerating municipal officers and powers was so firmly established, that when it proved difficult to pass laws of that nature applying to cities of all sizes, the lawmakers, instead of changing their method of legislation, devised methods of evading the constitutional provisions. The most successful method was the device of classifying cities; as the courts accepted a statute applying to a class of cities as a general law, even if there were only a single city in a class. The smaller cities were then grouped into one class, and a general law applied to them; but each of the larger cities was usually placed in a class by itself; and

the régime of special legislation with its evils of confusion, partisanship and corruption continued, and indeed became worse than ever with the development of cities in size and population.

In Illinois an effective general municipal law was enacted in 1872, which by granting large powers to all cities has been successful in limiting special legislation in that state. But even there some special legislation has been enacted, mainly because the financial powers granted in the general law are not adequate to the needs of the city of Chicago. In Ohio, too, after fifty years of classified legislation, the Supreme Court of the state felt compelled in 1902 to reverse its previous rulings and to declare that statutes for a class of cities which in fact applied only to a single city were contrary to the state constitution. The result was the enactment of a new municipal code applying to all the cities of that state, which, however, still goes so much into detail that it burdens the smaller cities with a too cumbersome machinery. The new municipal code of Indiana reduces the number of classes of cities in that state to five. And Virginia has a general municipal law, supplemented, however, by some special legislation. In some other states the smaller cities are organized under a general law.

New York state in 1894 adopted another method, in the attempt to reduce the evils of legislative interference in municipal affairs. The revised constitution of that year itself establishes three classes of cities, and provides that any bill applying to less than all the cities in one of these classes must be submitted to the city concerned, and if disapproved by the mayor or the mayor and council must be repassed by the legislature and signed by the governor before it can become a law. These provisions have secured a greater amount of publicity to special legislation and have prevented the enactment of some bills rushed through the legislature without careful consideration. In the case of bills passed towards the end of the session, the mayor's disapproval is also effective until the next session of the legislature. But in many cases the mayor's disapproval has served only to delay the enactment; and partisan or corrupt influences have secured the passage of measures over the local disapproval.

At the session of the Michigan legislature in 1903 a method of procedure was adopted in reference to bills affecting the city of Detroit, which secured the same advantage of publicity. At the request of the Common Council of Detroit, no Detroit bill was placed

on its third reading, until after a public hearing on the measure in the city. Such hearings were held regularly on Saturday mornings during the session, being attended by the local members of the legislature, a committee of the council, the newspaper reporters, and any one interested in particular bills. This procedure could be established in every state, and it ought not to be a difficult matter to secure it. During the year it was in operation in Michigan, it prevented the enactment of all measures to which there was strong local opposition. It has proved, however, inadequate as a means of securing needed legislation, owing to the difficulty of harmonizing the different factors.

Another method which prevents some of the abuses of legislative interference is found in the constitutions of New York and Kentucky, which provide that all local officers must be locally elected. Even this, however, has been evaded by creating special districts with appointive officers for the conduct of functions usually municipal, or by transferring such functions and officers from the city to the county.

Still another method found in several of the states west of the Mississippi river, is that of allowing cities to frame their own charters through a local convention analogous to a state constitutional convention. A constitutional provision authorizing this was first adopted in Missouri in 1875 for cities of over 100,000 population, when it was early applied in the city of St. Louis and more recently in Kansas City. In 1879 California adopted a similar constitutional provision to that of Missouri, which now applies to any city of over 3,500 population; and sixteen cities in that state are operating under charters framed in this way. The same plan was adopted in the constitution of Washington in 1889 for cities of over 20,000 population, in Minnesota by constitutional amendment in 1898; and in Colorado in 1902 for every city of over 2,000 population. A similar procedure was adopted by the legislature of Oregon for the city of Portland in 1901. The same plan is adopted in the program of the National Municipal League for cities of over 25,000 population.

This system of "home rule" charters secures to the cities a large element of freedom from legislative interference. But the experience of St. Louis, where police, excise and election administration has been placed in the hands of state appointed officials, on the ground that these are state and not municipal interests, shows that it may

not altogether abolish it. On the other hand, if these matters are also excluded from legislative action, there is a serious danger that municipal autonomy may be carried so far as to impair the sovereignty of the state, as has been recently urged by Governor Gage, of California. It should also be noted that this system tends to increase the confusion and complexity of the law on municipal government. In practice, too, there has sometimes been a long delay in securing the adoption of a charter under this process. The first charter submitted for Denver was rejected, and a second was framed and adopted with too little consideration. In Minneapolis, three proposed charters have failed of ratification; and the old discredited system continues in operation.

These considerations, and the frequent misrule and corruption in municipal government, make clear that the complete independence of the city from the state is not a satisfactory remedy for legislative interference. And while restrictions on special legislation and local charter conventions for the larger cities are steps in the right direction, the limitation on legislative control which they involve must be supplemented by the fuller development of other methods of control, which will be free from the evils that have accompanied the excessive dependence on the legislature. What these methods should be may be suggested by an examination of other forms of control already in existence.

Judicial Control.

To a considerable extent municipal officials are subject to the control of the judicial authorities. Suits may be brought against municipal corporations to enforce contract rights, and to some extent for damages due to negligence on the part of the agents of the municipality. Suits for damages may also be brought against municipal officials for acts performed without warrant of law. Municipal officials are also subject to criminal prosecution, not only for purely private acts, but also for misconduct in connection with their official duties. In addition to these judicial remedies to redress wrongful acts, the courts also exercise some preventive control over the acts of officials through the issue of writs of *mandamus,* injunction, *certiorari, habeas corpus, quo warranto* and the like by which they enforce statutory provisions governing the powers and duties of these officials.

There is little or no opposition to this judicial control, and almost the only criticism made of it is that it is not always adequate to meet the situation. Criminal prosecutions depend for their success on the action of local prosecuting officers, local juries and local judges, who may have close political relations with the officials under trial; but recent events in different parts of the country speak well for the working of the local machinery of criminal justice. Other difficulties arise from the precautions of our judicial system in favor of persons accused of crime, which add to the difficulties of conviction, and often secure acquittal or a new trial on a technical appeal to a higher court. And in the exercise of control through special writs, judges are extremely careful not to interfere with the discretionary powers of administrative officials, even when these may have been clearly abused. Evidently there is need for some further development of state control. Something may perhaps be done in strengthening the judicial powers in this direction; but something of a different nature must be devised to exercise the supervision heretofore so badly attempted through the detailed legislative control, whose abandonment has been urged.

Administrative Control.

It remains to examine the supervision exercised by executive and administrative officers of the central state governments. Fifty years ago or less no such supervision existed over municipal officials, nor was there any effective administrative supervision even of local officials, such as sheriffs and prosecuting attorneys, who were clearly and directly subordinate agents of the state governments. In England from the time of the Normans to the Tudors the important local officers had been both appointed by the Crown and closely supervised in their actions by the Privy Council. But the internal conflicts of the seventeenth century resulted in breaking up the machinery of administrative control, although the principal local officials continued to be appointed by the central government. This system was brought over to the American colonies; but here it was completely decentralized by substituting local election for central appointment, while the régime of no administrative supervision was continued.

Compared with conditions in continental Europe or with those in Great Britain at the present time, or even with our own national

administration, central administrative control of local officials in the American states is still very limited; and this is particularly so in the case of municipal officials. Nevertheless, there has been some development in this direction from the conditions during the first half of the nineteenth century; and an understanding of this development and the present situation may serve to indicate some features of our future policy. In this examination attention will be given to administrative supervision not only over municipal officials, but over all local officials established and authorized by the states.

Such supervision first appeared and has been furthest developed in connection with educational administration. Here decentralization was carried to the extreme in the petty school district; but over the local school authorities there is now in all of the states a superintendent of public instruction, a board of education, or other central authority. The powers of those state educational officials vary to some extent; but in most states they have control over the distribution of state school funds, direct the county supervision of schools, exercise control over the qualifications and training of teachers, and receive reports from all local school officers. In some states their powers are more extensive, most of all in New York, where the commissioner of education exercises supervision over elementary, secondary and higher education; while everywhere the state officials wield a large advisory influence beyond their compulsory powers.

Another field of state administrative supervision of local officials is that of matters affecting the public health. Most of the states have a state board of health, which act as bureaus of information and advice to local health officers; and in certain cases of delinquency can compel the local officers to take action.

In a similar way local charitable and correctional institutions are, in some of the larger states, brought under the inspection of state boards; which exercise an important advisory influence over both local authorities and the legislature, and in some cases may require the local officials to remedy serious defects or to introduce improvements.

Some steps have also been taken in establishing administrative supervision over local assessing officers. Many of the states now have state boards of equalization, which revise the total assessed valuation of local districts, so as to apportion the state property tax

more equitably. In a number of states, certain property formerly assessed by local officers is now assessed by a state authority. And in a few states, notably Wisconsin and Michigan, state tax commissioners are given effective powers of supervision over local assessing officers in assessing property even for local taxation.

A fairly uniform line of development has been followed in connection with such state officials. When first established they are only authorized to collect information and make recommendations. Then this authority is made more effective by empowering them to require reports and by enlarging their powers and means of inspection. This is followed by some negative or preventive control, by the power to establish regulations, and in some cases by authority to use compulsory processes or remove delinquent local officials.

It is generally recognized that the supervision of such state authorities as have been noted has worked for the improvement of public administration in the fields under their control. Even where they have only informational and advisory functions, something has been accomplished; and more has been done where their powers and means are larger. They have had two distinct advantages over the legislatures and legislative committees. In the first place, by specialization of functions and longer service they become to some extent at least experts in the particular subject; in the second place, partisan influences have been to a large extent excluded, and the control exercised has not been abused for partisan ends.

Would not a further development of such administrative supervision in municipal matters be advisable? Does not the existence of so many associations of municipal officials, for the purpose of collecting and comparing information about their work, show that in this field as in others, while "power may be decentralized, knowledge to be most useful must be centralized."[7] The collection and publication of municipal information can be more effectively done by an official state authority than by purely voluntary action; and the recommendations of such a central state bureau, based on adequate and accurate data, would serve to solve many of the difficulties of municipal administration.

Besides the work of information and advice, there are some branches of municipal government where further state adminstrative supervision would operate to the advantage both of the cities

[7] J. S. Mill: Representative Government.

and of the state as a whole. In the field of municipal finances the task of securing satisfactory data can only be accomplished on the basis of scientific and uniform method of keeping accounts in all of the cities. In most American cities municipal accounts and financial reports are still unintelligible to the ordinary citizen; and even where an understandable system is adopted in a particular city it is likely to be of little use in making comparisons with other cities using other systems. It is only on the basis of a uniform system that accurate and comparable information can be secured; and this can be secured only through a general law enforced by state officials. Some progress has been made in this direction in a few states. Wyoming for a number of years has had an examiner of public accounts, exercising powers over the financial accounts and reports of local officials similar to those in most states exercised over the accounts of banking and insurance companies. More recently Massachusetts and New York have enacted statutes providing for uniform financial reports from cities; while Ohio four years ago established an effective law for uniform municipal accounting in that state under the direction of the auditor of the state. Similar measures are being discussed in other states; and should be encouraged.

Another field where there is special need for state administrative supervision is that of the police. The courts have repeatedly recognized that in the control over the police, municipal officials are acting not as local authorities, but as agents of the state. And this view has often been made the excuse for vesting the police administration of some cities completely in state appointed authorities. This special treatment of particular cities cannot be defended on any general principle; but the judicial view of the state's authority and the interests of the state as a whole in an effective and honest police administration do warrant a general system of supervision in this field. This is not introducing any novel idea into our system of government, nor does it require any elaborate system of new officials to put it into effect. All that is necessary is to energise one of the oldest factors in our system of local government. Make it the specific duty of the county sheriffs, the responsible peace officers, to inspect the local police within their jurisdiction, and to report periodically to the governor of the state; and give to the governors in all states a power, now partially given in some,[8] to remove delinquent sheriffs or other local police officers.

[8] New York, Michigan, and Wisconsin.

To summarize: The demand for municipal home rule should be made more specific and more definite. It must be made clear that what is wanted is, not a revolution involving the complete separation of the cities from the state, but a larger freedom in matters of local concern from the restrictions of detailed municipal legislation, while retaining the control of the judiciary and asking for the assistance and supervision of state officers in securing the highest and the best municipal administration in the world.

HOME RULE CHARTER MOVEMENTS IN MISSOURI WITH SPECIAL REFERENCE TO KANSAS CITY

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While in the great majority of important matters the citizens of Kansas City have home rule, the schools, police and elections are not subjects of charter regulation, but are managed under state laws. The schools are under control of a board of citizens elected by the voters of the city. Recognizing the importance of keeping the schools free from politics the two political parties by common understanding without statute requiring it, have from the very beginning of the school system established the practice that each convention of the two parties should nominate only one-half the members of this board. The schools are thus freed from the scramble by political parties and the board is never filled by men of one party alone. No contributions for political purposes are, or ever have been, exacted from teachers or other employees of the school board, and the latter has never aided any party, but is as nearly non-partisan as it can be. The same persons are re-elected to the board time and again, serving the city earnestly and without compensation. In consequence the schools and the public library, which is also under charge of the school board, are entirely satisfactory.

In the management of the police, the city has not been equally fortunate. The police department is managed under state law by a board of three police commissioners, the mayor of the city ex officio, and two appointed by the governor of the state. The appointees of the governor, being in no way accountable to the city, can do and generally do as they please, or as the dominant party in the state pleases they shall. The city, in Missouri, cannot control the police but the police can, and generally do, control the city.

So long as governors and police commissioners have, and cannot help but have, political predilections, it is difficult to see how

this influence can be avoided when a wink will always be as good and usually more effective than an order. The state law should permit the commissioners to be elected by the people, as is the case with the school board, leaving the citizens to work out a method of insuring and of compelling their non-partisanship.

Although the election commissioners, three in number, having control of all elections, including city elections, are appointed by the governor and regulate the matter of elections under a state law, Kansas City has been free from trouble from this source, as the men appointed on this board, though generally active politicians, and inclined to appoint party workers as judges and clerks of elections, have performed the duties of registration and election control honestly and in such manner as to disarm criticism.

In most other respects than those mentioned, Kansas City has had a large measure of home rule through its charter, framed in 1889 pursuant to provisions of the constitution of Missouri of 1875, which constitution was adopted March 24, 1875, ratified by the people October 30, 1875, and went into effect November 30th of the same year.

Under this law a city of over 100,000 population may cause a board of thirteen freeholders to be elected by the qualified voters of the city. These freeholders must within ninety days after their election submit to the mayor of the city a draft of a charter. Within thirty days thereafter this proposed charter must be submitted to the qualified voters of the city and becomes the organic law of the city if it receives in its favor four-sevenths of all votes cast at the election. Any charter thus adopted can be amended by a three-fifths vote of the qualified voters at a general or special election. Such charter must always be in harmony with and subject to the constitution and laws of the state.

The Kansas City charter of 1853, modeled after and largely copied from the then existing charter of St. Joseph, was in force, with amendments made thereto, until 1875. In the winter of 1874-5 the citizens of Kansas City, stirred up by some efforts being made by interested parties to foist upon them, through the legislature, charter amendments not to their liking, held a mass meeting of citizens, which appointed a committee of thirteen, with William Warner, then mayor of the city (now United States Senator) as chairman, to draft a new charter to be submitted to the legislature then

in session. Judge F. M. Black, one of the members of the constitutional convention, was a member of this Kansas City committee. The charter proposed was approved March 24, 1875, and was put into operation before the constitution of 1875 took effect. The idea that a committee of citizens might draft a charter for the city, complete in every detail, and submit it to the legislature for passage was a modification of the constitutional idea then being discussed in the daily press, and this charter of 1875 of Kansas City, drafted by a citizens' committee of thirteen and thus adopted, was doubtless the first exercise of this home rule charter idea, and is noteworthy in municipal history. This charter of 1875 with amendments thereto was the charter of Kansas City until 1889.

The state constitution of 1875 was at the time of its adoption much discussed by the press and aroused earnest popular interest. The records of the proceedings and debates of the constitutional convention embrace sixty volumes of about 300 pages each, showing the great care and consideration bestowed on this remarkable instrument. The provisions of the constitution authorizing cities to frame their own charters was first put into operation in St. Louis, as that city was the only one in the state at that time having even approximately the requisite number of inhabitants.

Although the constitution of 1875 gave cities the right to frame their own charters, the chief object sought to be accomplished by the framers was not the emancipation of the city of St. Louis from legislative control but to allow it to enlarge its limits and cut loose from the county, thus exempting its property from taxation for county purposes. Kansas City is still part of a county, and much of the taxation originating in its limits is diverted for county purposes, including the county tax on saloons, amounting to about $200,000 a year, which fund is used for county roads outside the city limits. Several unsuccessful efforts have been made by Kansas City to divorce itself from the county. This could only be done by legislative enactment, and such legislation invariably meets opposition from the county representatives assisted by the country element of the legislature, always opposed to city encroachments.

August 27, 1876, the citizens of St. Louis ratified a charter proposed to them by thirteen freeholders previously elected to frame such charter for them. James O. Broadhead, who had been chairman of the St. Louis delegation in the constitutional convention, was the president of this board of freeholders.

At the time of the adoption of the constitution of 1875 Kansas City had a population of only about 50,000, and it was not until about 1887 that the city attained the requisite population of over 100,000. In order to avail itself of the constitutional provision, the friends of Kansas City succeeded, on March 10, 1887, in obtaining from the legislature an act known as the Enabling Act, providing specifically how the constitutional method might be carried out. Section 14 of this act provided that any city, for the purpose of ascertaining its population, might take a census which would be binding on all courts of the state without proof. At this time (1887) the city had increased in wealth and volume of business, and the charter of 1875 was too narrow in many ways for its growing needs, especially in matters of public improvements and parks and boulevards. The matter of granting franchises with little thought or consideration had become of importance as the old horse railways had grown into cable systems, having great political power, and earning wealth for their promoters.

Following out a general demand for something new, freeholders were nominated by the mayor and council to frame a new charter under ordinance passed May 24, 1887, and on October 4, 1887, thirteen freeholders were elected by the people. Their work was submitted to the people and rejected January 30, 1888, and by the decisive vote of 1,996 to 2,613. The influence most potent in the defeat of this charter of 1888 was that of the street railway companies. The charter proposed provided for the sale of franchises and renewals thereof at public auction to the highest bidder, and also authorized any street railway company to run its cars over the tracks of any other street railway company in the city by paying reasonable compensation under rules to be prescribed by the common council. Another stand taken by the freeholders was fought bitterly. The people in the southern part of the city were anxious for a bond issue to close up O. K. Creek sewer, a disagreeable and unhealthful open stream; the people at the other end of the city were equally anxious for a bond issue to build a city hall in their part of the city. The freeholders, imbued by the old idea that a municipality should pay as it went, refused to incorporate any bond authorization. One of the freeholders having large property interests in the O. K. Creek sewer district refused to sign the completed document and spoke and worked against it; and although the

freeholders and their advocates maintained that taxes were reduced, public improvements provided for, and a burdensome city debt positively forbidden, the proposed charter was doomed. At a meeting at Turner Hall, January 24, 1888, called by the Central Labor Union, a resolution was passed condemning the charter. Considerable feeling was engendered during the campaign, the newspapers advocating the charter, dubbing the opposition "strikers" and "boodlers," and the opposing press denominating the charter as a "silk stocking" movement and denouncing the "arrogance that would make the people take what they did not want," and commenting on the result as an "indication of the right of criticism and an indication of its power." The mistake made by the freeholders, from a practical standpoint, was their failure to take advantage of the authority given by law to present mooted or debatable questions in the alternative so that the opponents of any particular proposition might vote for or against that proposition without voting against the whole charter. The truth was that the freeholders antagonized selfish interests without inserting into the proposed charter any pet wants of the people or of any particular class. Notwithstanding the fact that the constitution itself required all special charters to provide for a bi-cameral council, this feature was urged as an objection to it. Notwithstanding the defeat of this charter it was generally felt that some more modern instrument was necessary to supplant the old charter of 1875, and an ordinance was passed October 20, 1888, providing for a special election of thirteen freeholders to draft a new charter, and on April 9, 1889, the charter prepared by them was ratified by the people by a vote of 3,493 in favor of the charter and 334 against it. There were four points which made the charter of 1889, which is our present charter, succeed where the charter of 1888 failed:

1st. Unlike the charter of 1888, the freeholders submitted alternative sections on matters concerning which there were wide differences of opinion. The voters were to decide (*a*) whether they would have $500,000 of bonds for O. K. Creek sewer and the city hall or no bonds at all, and (*b*) whether the saloon licenses should be $250 or $500 a year. In order that any voter be allowed to vote on either of the above propositions it was necessary that he vote for the rest of the charter. The result was a large vote, and the charter carried with good margin.

2d. The provision of the defeated charter concerning the sale of franchises to the highest bidder and the use of its tracks by other railway companies was quietly dropped.

3d. The interest on special tax bills was reduced from 15 per cent. to 10 per cent. A provision was made for paying special assessments for grading and paving in installments.

4th. One provision that had worked against the rejected charter was the procedure for condemnation of property without due notice to parties interested. This was changed so that no condemnation proceedings could be instituted without apprising the parties in interest.

One of the innovations of the charter was the inauguration of a board of public works to have charge of the city's properties and of public work. This board consists of four members, one the president of the upper house of the common council, the other three to be appointed by the mayor and confirmed by the upper house in such a manner that not over two members of the board should be of the same political party. The organization of this board expedited public business by allowing the city engineer more time for his routine business.

Before this charter was submitted to the people it was evident that there was little or no opposition to it as it seemed to be favorably considered by all; the Commercial Club endorsed it; the bond and anti-bond people were both eager to vote for it in order to vote for or against bonds; the street railway people were content; and the saloon and brewery element determined to vote for the rest of the charter in order to insure a $250 saloon tax.

This charter of 1889 has by the vote of the people been somewhat modified by subsequent amendments, chief among which have been the extension of the city limits; the voting of bonds for purchase of water works; and the adoption of an article inaugurating the present park system at an election held June 6, 1895, under ordinance approved April 18, 1895. The provisions of this park article were held constitutional by the Supreme Court in the case of Kansas City *vs.* Ward, 134 Mo. 172. All of these amendments were severely contested before being adopted.

On September 23, 1904, an ordinance was approved by the mayor of Kansas City providing for a special election of another board of thirteen freeholders to draft a new charter, setting the eighth day

of November, 1904, as the date for the election. This charter failed to carry March 7, 1905, by a vote of 11,156 against the charter and 9,979 for the charter. The main reason why a new charter was demanded at this time was because the existing charter failed to give the city many powers urgently needed by it, among these adequate power to condemn property for hospitals, the power to construct "septic" sewers or to furnish money to pay for them; the power to acquire outlets outside of the city for sewer purposes; to levy special assessments against railroad property; to construct viaducts, subways, cuts and tunnels needed to give adequate communication between the two Kansas cities, and between the various parts of Kansas City, Mo. Under the existing charter the city was prohibited from making a contract for more than one year. This prevented it from making satisfactory arrangement for the disposition of its garbage and its street repairs. There was also a general popular demand for local control of the police and of the liquor licenses. Under the charter of 1889 saloons are licensed and controlled by the police board.

When the Kansas City charter of 1889 was adopted by the people there was a provision voluntarily put in that charter to the effect that before an application for a license to keep a saloon should be received there must be endorsed thereon a certificate signed by the Board of Police Commissioners that such applicant had proved himself to be a person of good character. The charter also voluntarily granted to the police commissioners the right to revoke liquor licenses when it was shown that the dramshop keeper was maintaining a disorderly house. The charter of 1889 voluntarily gave over these powers to police commissioners, accountable not to the city but the state, believing at the time that it was for the best interest of the city that the saloons and police should be under one control. But as the courts decided that the propriety of issuing and revoking a license in any given case was a pure matter of discretion of the police commissioners (*ex parte* Joffee, 6 M. A. 360), it was soon discovered that these powers given to the police commission were whips that could be used with astounding effect on the saloon element. Power over the saloons also meant control of the breweries which in Kansas City own and manage a large proportion of the saloons. Recognizing the immense additional political power with which they had endowed this already powerful police commis-

sion, and over which the citizens of the city had no control by their votes either directly or indirectly, the people made urgent demand for some sort of a readjustment of police and saloon management, and when the charter movement in 1904 started, one of the hopes of the people was that the freeholders in framing their charter would separate the police from the saloon management by taking back for the city its right to control the licensing of saloons and vesting it in a local board or commission constituted for that purpose. Under the decision of the courts the charter could not change the control of the police commissioners over the police, as this was held to be the exclusive right of the legislature, the police being held to be state officers under the law.

As both political parties in their latest platforms had declared in favor of civil service, the proposed charter incorporated an article based on the New York Roosevelt Civil Service Act embracing all laborers, employees and officials of the city, except elective officers and specifically named members of boards and heads of departments with their confidential deputies. This department was to be under control of a bi-partisan continuing board of five to be appointed by the mayor. Competitive examinations for city service were required and it was stipulated that the person standing highest on such examination should be certified for appointment. In order to insure discipline absolute right of discharge was given to heads of departments. Provision was made for employment of laborers in the order of their applications.

New articles were also inserted concerning "city hospitals," a matter of present importance as the city is now building a large new hospital. The hospitals were, under regulations taken from the New York City charter governing the allied hospitals, to be placed under the control of a bi-partisan board of five to be appointed by the mayor, no physician or surgeon being allowed to serve on this board. A "Health and Public Charities" Department to have control of "all measures already in force and which may hereafter be adopted having for their purpose the protection of the lives and preservation of the health of the inhabitants of the city," was to be under the charge of another continuing board of five citizens to be appointed by the mayor, two to be licensed physicians, one a veterinary surgeon, and the two remaining members, the mayor and chief of police ex officio.

The Hospital Department was to have charge and control of "all provisions which have been made and which may hereafter be made of all property, institutions and instrumentalities which are now owned or controlled and which may hereafter be owned or controlled by the city for the care and treatment of the sick and injured." In addition to these three entirely new articles incorporated into the new charter, a street cleaning article was adopted, providing adequate arrangements for the cleaning of the city's streets by setting apart 7 per cent. of the city's general revenue for that particular purpose, and distributing the work over the city in proportion to the taxes paid by each district of the city.

The charter proposed concentrated responsibility and the appointing power in the mayor instead of requiring the appointments to be confirmed by the upper house of the common council, as is the case in our present charter. Following the best systems of municipal accounting, it corrected the present lack of central direction and control and of correlation in the accounts of the different departments, the lack of proper safeguards in the charging up of assets and revenues, and provided for one account which should exhibit the financial condition of the city at any time. It also introduced uniformity in all the accounts and fixed responsibility on the officer responsible therefor. The whole charter was built on the theory of definitely locating responsibility so that the people might know whom to praise or blame in every department.

The leading reasons why this charter of 1905 was rejected were:

1. While no outspoken opposition was made to the civil service article, on account of the fact that both political parties had previously declared themselves in favor of civil service reform, the charter was quietly and with unanimity opposed by "politicians" of both parties and their "friends." The first board of civil service commissioners was named in the charter itself, which aroused some further opposition.

2. The proposed charter provided a board of three, to be appointed by the mayor, to have charge of the granting and revoking of saloon licenses to supplant the control of saloons then possessed by the Board of Police Commissioners appointed by the governor. It is probable that the police department and saloons were opposed to this provision as a unit.

3. The saloon and brewery element also opposed the charter because of the following provisions:

"It shall be the duty of the board to enter of record an order withdrawing any certificate given by it on which a license has been issued by the city auditor, whenever requested so to do, in writing, filed with the secretary more than twenty days before such license will expire, by two or more resident real estate owners in the block where the saloon so licensed is located, or whenever, for any cause, such board shall see fit to do so; and it shall then be necessary for such licensee to make a new application for license and obtain a new certificate from said board before another license can be issued to him."

The saloon element and the brewery interests claimed that this clause put it into the power of two real estate owners to peremptorily take away their licenses; while the charter advocates maintained that such real estate owners could by virtue of this article only cause the saloon keeper to appear and make his showing that he was conducting a reputable saloon.

4. Many large property owners opposed the charter because it took away the 6 per cent. rebate for prompt payment of taxes that existed in previous charters.

5. The labor unions (not as a body, but as individuals) opposed the charter because they had no representation on the board of freeholders, and for the further reason that the charter did not provide for the initiative, the referendum and the recall, and also for the reason that it granted to the common council "the power to license, tax and regulate all trades, professions, pursuits or employments not hereinbefore enumerated, of whatever name or character, like or unlike, and fix the amount of license tax to be paid thereon," which they maintained would be a tax on the shovel and the dinner pail.

6. A large number of influential lawyers voted and quietly worked against the charter for the reason that it made such extensive changes in the special tax bill system for public improvements, a system which they argued had cost thousands of dollars to have interpreted by the courts, and because the provisions proposed as substitutes or changes in many other sections were "experimental."

7. The charter proposed a system of hospital management, putting this department in charge of a bi-partisan board of five and named the first incumbents in the charter itself. This hospital act

was opposed by some of the physicians for fear lest this or that man or faction might obtain control of the clinics to their disadvantage.

8. Many objected to the proposed charter for the reason that it gave too much power to the mayor, and might assist him in building up a local political machine, and argued that the appointing power in city government should be distributed.

9. The charter of 1889 provided that corner lots as well as inside lots should be taxed for special improvements, such as paving, sidewalks, etc., according to frontages on the improvements. An attempt to relieve these corner lots from part of this taxation received opposition from owners of lots not so situated and also from corner lot owners who had already paid for similar improvements on the old plan.

10. Objections were made to the charter because it provided for too many boards. In addition to the board of public works and of parks and boulevards in the existing charter, the proposed charter provided for boards of citizens to have charge of hospitals, fire departments, civil service, health and public charities and dramshops respectively. As in the case of the existing park board, all of the members of these boards were to serve without compensation except the members of the boards of public works, of dramshops and of civil service. To safeguard these boards from being used as political machines, the charter provided for representation on these boards of more than one political party, and in the case of the dramshop board, it was provided that not more than one of the three members should be of the same political party as the appointing mayor. All of the boards except the dramshop board were to be continuing boards so that there should always be on the board some old members having knowledge of its duties when a new member superseded an old.

In presenting this proposed charter to the people, the freeholders did not offer any alternative sections, as they were authorized to do under the law. It is probable that if the changes concerning saloon management and the civil service article had been so put that the voter might accept or reject either of these questions without voting against the whole charter, not only the charter, but also these provisions might have carried.

In framing the defeated charter of 1905 the freeholders were

influenced by the "municipal program" or model charter of the National Municipal League. It is probable that a study of the charter proposed by them will show that it approaches more nearly the principles advocated by this body than any other city charter.

After the draft of the charter had been put into the hands of the mayor, over 8,550 copies were distributed to the citizens of Kansas City by a committee of fifty citizens appointed by the freeholders for the purpose of putting the proposed charter properly before the voters. This committee did active and enthusiastic work in favor of the charter.

The charter of 1905 received the unanimous support of the Kansas City press. As the day when the charter was to be submitted to the people approached, the newspapers published from day to day, able editorials covering the whole charter in detail. The provision changing the control of the saloons from the police commissioners and vesting it in a locally appointed board, received the especial support of one of the newspapers. After the defeat of the charter this paper at once actively advocated Sunday closing of the saloons. The police commissioners, newly appointed by our present governor, recognized this popular demand and issued orders to that effect, which have since been strictly observed. The charter was endorsed by the Commercial Club, the Real Estate Exchange and other business organizations. The work done by the opposition was done quietly, and few if any public speeches were made by those chiefly interested in its defeat. Although the charter suffered defeat, its friends refused to accept the result as final. The committee of fifty, who had engineered the charter campaign, on March 15, 1905, determined to confer with the various commercial and industrial associations of the city in furtherance of a new charter movement, endeavoring to bring about a harmonious and united effort for the adoption of the charter which had been proposed with such changes therein as might be advisable for the best interests of all the people of Kansas City. Following this effort various associations of the city appointed representatives to confer with them, and such pressure was brought to bear by these influences that on September 11, 1905, an ordinance was approved setting October 24, 1905, as the date for a special election to select another board of freeholders to frame a charter. While the matter was pending, the city comptroller called attention to the fact that the election incident

to this charter movement would cost approximately $60,000 and that there were no available funds to meet this outlay. Taking this into consideration in connection with the fact that a general election for city officers will be held next March, the common council, believing it would be inadvisable to inject further charter discussion into the midst of this regular city campaign, on September 23, 1905, repealed the ordinance providing for the election of charter freeholders. Another ordinance providing for the election of thirteen freeholders to frame a charter to be elected at the general city election next March is now pending.

Although the charter of 1905 was defeated, the thirteen freeholders who without compensation gave up their whole time for three months to the drafting of the charter should not feel that their work was in vain. The people have been aroused to questions brought out by charter discussion, the settlement of which in the right way will be of inestimable benefit. A charter embodying in tangible form the ideas of thirteen citizens as to the provisions which they believe will be for the best interests of the city has been worked out to the smallest detail and with the greatest care. On this basis freeholders may build a more satisfactory and better charter. Such charter, when adopted, will doubtless be one both practical and scientific; a valuable aid to the right development not only of Kansas City but also of other American cities.

BALTIMORE UNDER ITS NEW CHARTER

By William Reynolds, Esq.,
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The new charter of Baltimore city was enacted by the legislature and approved by the governor on March 24, 1898, and by its terms went into effect immediately, but as the new officials and boards created by it were not appointed until February, 1900, the municipal government could not be fully organized under it before March 1, 1900; so that on March 1, 1906, it will have been in full operation just six years—a sufficient period to enable us to pass an intelligent judgment upon its general efficiency. Such a judgment, if fairly rendered, must undoubtedly be a favorable one. Without claiming that the instrument is perfect, it is submitted that no candid person, who is at all familiar with the actual results of its operation since it was passed, can avoid the conclusion that it has already greatly improved the administration of our municipal government and affords the opportunity for much further improvement. In order that the manner in which this has been effected may be intelligible to the average reader who is not already familiar with the provisions of the charter, it will be necessary to refer briefly to a few of the more salient features of that instrument.

The executive functions of the municipality are vested in a mayor, who is elected for a term of four years, and in seven executive departments, known as those of Finance, Law, Public Safety, Public Improvements, Public Parks and Squares, Education, Charities and Corrections, and Review and Assessments, together with certain municipal officers not embraced in any department. Each of these departments has its head, either a municipal officer or a municipal board, and most of them are divided up into two or more sub-departments, each of which also has its own appropriate head. Except the comptroller, who is elected by the people, the heads of all departments and of all sub-departments, and all

municipal officials not embraced in any department, as well as all special commissions or boards, are appointed by the mayor, subject to confirmation by the second branch of the city council, for a term of four years, unless otherwise specially provided. The officials so appointed are removable by the mayor at any time during the first six months after appointment at his pleasure, but thereafter may only be removed for cause upon charges preferred and after trial had thereon before him.

The heads of departments, heads of sub-departments, municipal officers not embraced in a department, and all special boards and commissions, have the sole power of appointment and removal at pleasure of their subordinates. The city engineer, water engineer, harbor engineer, inspector of buildings and commissioner of health, are all required to be experts, who have had at least five years' experience in the active practice of their respective professions with the responsible charge of work during that period.

This method of confining the appointments to office by the mayor to the heads of departments, heads of sub-departments, municipal officials not embraced in a department and special commission or boards, and making these appointments generally for a term of four years, subject to confirmation by the second branch of the city council which has only nine members, is a marked improvement over the former method by which the mayor nominated and with the advice and consent of a convention of the two branches of the city council (thirty-six members in all) appointed for a term of two years "all officers under the corporation except the register of the city and clerks employed by the city—or under its authority." For under it appointments to most of the minor offices were usually made at the dictation of the members of the city council or of the local boss who could make out the best claim to the patronage of that office as his especial perquisite. A mayor who failed to recognize the claims of at least a majority of the members of the city council to what they considered their fair proportion of executive patronage could not ordinarily get any of his appointments confirmed by the joint convention. A former mayor has more than once publicly stated that when in office ten or twelve years ago he had to trade off his appointment of two lamplighters and a constable in order to secure the confirmation of the founder of the Enoch Pratt Free Library as a finance commissioner. Since the new charter has been in operation there has been

no such abuse of the power of confirmation lodged in the second branch nor has any proper appointment of any mayor ever yet been held up or turned down by that body. Now the mayor has, or ought to have, nothing whatever to do with the appointment of minor officers. This power is committed to the discretion of the heads of the various departments who are held responsible for any inefficiency on the part of their subordinates. Of course, a mayor, who chooses to do so, *may*—at least during the first six months after he has appointed the head of a department—exercise great influence in dictating whom that officer shall appoint as his subordinates, but both our late mayor and present mayor have absolutely refused to interfere in any manner with the exercise of the discretion given by the charter to the heads of departments in appointing these subordinates, and if their successors in office are wise and desire to have successful administrations they will do well to follow this example.

It must be admitted, however, that while this system has worked satisfactorily so far, the supreme test as to its practicability has yet to be applied. Mayor Hayes, under whom the new charter first went into full operation, was elected as a Democrat and appointed all his heads of departments from that party. He was succeeded in May, 1903, by Mayor McLane, who was also elected as a Democrat and made his appointments in the following September from the same party, most if not all of them being selected on grounds of fitness and capacity for the discharge of their official duties. Although in making these appointments he confined himself to those affiliated with his own party, except where the law provided for minority representation on boards, he refused to submit to any dictation from the party managers as to what persons he should appoint. In some cases he reappointed the same officials who had served under his predecessor, and in all cases, while holding each departmental head strictly responsible for the proper administration of his department, he refused to interfere in any way to influence the latter's selection of the subordinates through whom it was to be operated. Mayor McLane's sudden death on May 30, 1904, after he had been in office little more than a year, devolved the duties of the office for the remainder of his four years' term upon Hon. E. Clay Timanus, president of the second branch of the city council, who had been elected to that office as a Republican at the same time that Mr. McLane was chosen mayor as a Democrat, so that the various heads

of departments having nearly all been appointed by the latter for terms of four years, which will not expire until after a new mayor shall be elected, and having all been in office over six months, they were not removable by Mayor Timanus except for cause after charges preferred and trial had before him, and no such removals have ever been attempted.

Whether the mayor to be elected in May, 1907, will, after appointing his heads of departments, and during the six months while he will have power to remove them at pleasure, attempt to influence them to appoint their subordinates with a view to promote partisan political aggrandizement rather than the efficiency of the public service, is a matter for the future to determine. But we may expect with reasonable certainty that the longer such an attempt is postponed, the greater opposition will it encounter from public sentiment.

The legislative department of the city government consists of the first and second branches of the city council. The first branch is composed of twenty-four members, one of whom is elected by each ward of the city every two years. The second branch consists of nine members. Its president is elected by the city at large at the same time as the mayor for a term of four years, and in case of vacancy in the office of mayor by death, resignation or permanent disqualification, becomes mayor for the remainder of said term. Of the eight other members, two are elected by each councilmanic district of six wards, each for a term of four years, but so that the terms of four of the members, one from each district, shall expire every second year. Thus municipal elections are held once in every two years for all members of the first branch and half the members of the second branch; and they are held once in four years for mayor, president of the second branch and comptroller. These elections are held in May, six months before the state and federal elections.

One result of the separate municipal spring election was a decided improvement in the character of the men sent to the city council—notably in the members of the second branch, four of whom were elected every second year, one from each legislative district of the city, embracing six wards. There has been also some improvement, although not so much, in the members of the first branch, one of whom is elected every second year from each ward. These elec-

tions have also had the beneficial effect of taking municipal affairs to a considerable extent out of the control of the regular political party managers. While it still remains true that no one can reasonably expect to be elected to any municipal office without getting either a nomination or an endorsement from one or the other of the leading political parties of the state, there is nevertheless so much more independent voting at these spring elections than at those which have to do with state or national politics, that the independent voters hold the balance of power in them by so much wider a margin as frequently to cause the result to be determined by considerations other than purely political ones.

For example, in the spring election of 1903 Mr. McLane, the Democratic candidate for mayor, was elected by a plurality of 564 votes, while Mr. Timanus, the Republican candidate for president of the second branch of the city council, was elected by a plurality of 2,045 and Mr. Heffner, the Republican candidate for comptroller, was elected by a plurality of 795. At the state election in November of the same year all candidates upon the Democratic ticket carried the city of Baltimore by pluralities ranging from 9,640 to 3,765. One result of these elections was the introduction into the next legislature of a bill—which, according to the newspapers, had the support of the managers of both political parties,—abolishing spring elections and going back to the old system by which the mayor's appointments were made subject to the confirmation of a joint convention of both branches of the city council instead of by the second branch only. This bill was rushed through the legislature but happily, for the cause of municipal reform, was vetoed by the governor. But for this, much of the good effect of the new charter would have been lost.

Perhaps the most beneficent feature of the charter is the restriction which it imposes upon the city council in the matter of spending money. Apparently the great object in life of the average city councilman is to have as many people appointed to office from, and as much public money spent in the ward or district he represents as possible, and in order to accomplish this he resorts to that system of give and take which has caused the river and harbor appropriation bill of Congress to be popularly known as "the Great Divide." Formerly when some public improvement was really needed in one of the wards, the councilman from that ward in order

to get it would often have to vote for appropriations for expenditures of a like amount in a majority, at least, of the other wards, many of which were not really needed.

This system has been done away with under the new charter by conferring the sole power of making appropriations upon a Board of Estimates consisting of the mayor, the president of the second branch, the comptroller—all of whom are elected by the people—and the city solicitor and city engineer, both of whom are appointed by the mayor. Prior to October 1st of every year the head of each department is required to furnish this board with his estimate of the money required for his department during the next year, and from these estimates and such other *data* as they can obtain the board prepares and submits to the city council an itemized appropriation bill for all sums of money required to be spent by the city during the coming year (including such public improvements as it may deem necessary or expedient to be made). At the same time it fixes the tax levy for the next year at a rate sufficient to meet the expenditures so recommended, together with a contingent fund of $50,000 provided to meet any unforeseen emergencies that may arise. When this ordinance comes before the city council for its action it may reduce or strike out, but may not increase any item, nor may it insert any new ones, and it may increase but may not diminish the rate of the tax levy.

The new financial system thus established has so far worked admirably. Its fundamental provision is that no money shall be paid out under any appropriation until the money for that appropriation is actually in the city treasury, and no appropriation can be used for any purpose other than that expressly named in the ordinance. Under the former system whenever money was needed it was raised by temporary loans, which became a floating debt, and when this grew too large to be carried as such it was funded and a bonded indebtedness created. The new system not only prohibited but made absolutely null and void the creation in the future of any temporary loan or floating debt with the single exception of allowing a temporary loan to be met by taxes in the process of collection. That this system is a good practicable working one is demonstrated by the fact that it stood the test of the time of stress following our great fire in February, 1904, so successfully that no changes in it were then found necessary. In the report of Mayor Hayes for the year

ending December 31, 1902, he calls attention to the fact that during the years 1894 to 1898, inclusive, the city paid out as interest on its temporary loans $553,314.77, and during the years 1898 to 1902, inclusive, it received as interest on its cash balance in banks $132,-262.97, making a saving of $685,577.74 in the matter of interest alone. The tax rate had in the meantime been steadily reduced as shown by the following table:

Rate for 1896	$2.00	Rate for 1900	$1.67
" 1897	2.00	" 1901	1.81½
" 1898	2.25	" 1902	1.95
" 1899	1.98	" 1903	1.86¾

He also calls attention to the fact that the sinking fund which had been so often plundered and robbed under previous administrations in order to keep down the tax rate is now kept sacred, and during his administration (of a little over three years and a half) had been increased $8,276,395.61. He further says: "The public money has been honestly and economically expended, and full value has in all cases been received. No jobs or rake-offs on contracts have been tolerated. The lowest responsible bidders, without the necessity of seeking outside aid, have been the ones who have done the work or furnished supplies for the city. Specifications which require the broadest competition have always been required, and favoritism in awarding contracts is unknown in the government of Baltimore." All this I believe to be strictly true, and I also agree with the mayor in his statement that the exercise of the functions and powers of the Board of Estimates has been the principal agency in the improvement of our city government, although I think it no more than just to add that the Board of Awards (consisting of the same officials who compose the Board of Estimates, excepting that the city register is substituted for the city engineer), is an agency second only to the Board of Estimates in its importance. It is made the duty of this board to advertise in two or more daily newspapers for at least ten days for proposals before any contract is made for any public work or the purchase of any supplies or materials for the city involving the expenditure of over $500, and to award all such contracts under regulations prescribed by law to the lowest responsible bidder. The results of the work of this board have proved most satisfactory.

A striking illustration of these results is to be found in the reforms in the city engineer's department which has charge of all the street paving. In Mayor Hayes' report, already quoted, he mentions that vitrified brick on sand foundation had cost during his administration $1.45 per square yard, while during previous administrations, from 1881 to 1894, it had varied from $1.80 to $3.67 per square yard. He also states that the average cost of Belgian block laid during his administration had been $1.92 per square yard, while some work on this pavement done by day labor during the years 1889 to 1894, inclusive, had cost from $3.30 to $14.97 per square yard. In this connection it may be mentioned that some years ago a story was told about town to the effect that when some man remonstrated with one of his visitors for spitting on his new Brussels carpet which he said had cost him $3.50 per yard, the visitor retorted that he was accustomed to spit upon the pavement on Gay street which cost $7.50 per yard. Investigation by officials of the present department has since disclosed the fact that the Gay street paving thus referred to really cost the city over $14.50 per square yard.

Great improvements have also been made in the management of the city jail. In the year 1898, 649 inmates were there entertained at an average cost of $47.14 per head. This expense has been gradually reduced until during the year 1904 the cost of 679 persons was only $29.45 per head, while the inmates appear to be equally comfortable and secure and are given better food.

But the greatest reforms seem to have been accomplished in the Department of Education. Formerly the public school board consisted of twenty-four members, elected annually by the city council, one from each ward, upon the nomination of the councilman from that ward, and it is needless to say that this body ran the public schools mainly upon the patronage system. At present, the school board consists of nine members appointed by the mayor from the city at large and selected for their fitness for the office. They are all appointed for a term of six years, but so that the terms of three of them expire every second year. They conduct the schools wholly upon the merit system, and as a natural consequence have greatly improved them. The following extract from its report to the mayor, dated June 19, 1901, concisely tells the story: "While new schools and new positions have been established—while many salaries have been raised and none decreased—the total cost of

public instruction has not been augmented. The amount estimated by the former board for the year 1900 was $1,385,309; the amount actually appropriated for that year by the mayor and city council was $1,298,870. This board entered upon its duties March 1, 1900, two months after the appropriation for that year had become available. At the end of the year there were unexpended balances amounting to $39,104.63, which were paid into the sinking fund." To this may be added that the amounts expended for the day schools (exclusive of salaries) were, in 1898, $187,936.13; in 1899, $162,552.61; in 1900, $98,968.15; 1901, $89,314.70; in 1902, $110,939.70; the increase of over $20,000 in the latter year being owing to the great rise in the price of coal. But even then the money spent was $5,860.30 less than the appropriation made.

The expenses for the year 1903 were $127,432.13; for the year 1904, $136,822.50; and there has been appropriated for the expenses of the current year 1905 the sum of $144,747.50. This increase during the last three years includes some $15,000 spent for portable school houses which have but recently been introduced into our system, and also the cost of an extensive laboratory equipment and books of reference provided for the City College and the five high schools, besides the establishment of manual training centers and cooking schools. But it will be noted that with all these additional outlays the appropriation for the current year is still some $43,000 less than the amount expended in 1898 under the old régime, when the number of pupils actually attending the schools was 1,734 less than last year. The amount paid for salaries in the year 1899 was $1,121,407; the amount appropriated for that purpose for the present year 1905 is $1,214,360. In 1899 there were 1,802 teachers employed, with an average attendance of 53,728 pupils; while in 1904 there were only 1,737 teachers employed, although the average attendance of pupils had increased to 55,462.

This greater effectiveness of the teaching force has not been accomplished by any falling off in the character or amount of instruction given to pupils, but merely by declining to fill positions which were unnecessary and by reducing the number of teachers employed as principals. The improvement of the schools has been marked in every particular ever since the new board was organized, and their whole management can now be truly said to be entirely

removed from the domain of political influence and conducted upon the most approved modern methods.

The limits of this article preclude the discussion of the great improvements made within the last few years in the administration of the Department of Charities and Corrections which embraces the care of the city poor and the management of the city jail and the various juvenile reformatories, because many of the reforms are partly attributable to influences which had been in active operation for some time before the new charter was enacted, although it is largely through the agencies provided by that instrument that these influences could be effectively exerted.

But one result actually obtained, which it is believed was only made possible by the reformed method adopted in this department, is too striking to be omitted. After the great fire of February 7 and 8, 1904, the legislature appropriated $250,000 as a contingent fund to relieve cases of destitution and need caused by that fire. The administration of this relief fund was confided to a committee of twenty-seven citizens appointed by the mayor and known as the Mayor's Advisory Relief Committee, the chairman of which was the president of the Board of Supervisors of City Charities. This committee administered relief largely through the various charitable institutions and churches in the city and after expending $23,212.39 in the relief of every case brought to its attention which the officers considered to be within the purview of the act, returned the remainder of the appropriation to the state treasury. While a similar course might possibly have been followed before the days of the new charter, comparatively few persons can be found who would have deemed it at all likely.

For its great advances made in municipal reforms within the four years, Baltimore is much indebted to the pertinacity and zeal with which the Hon. Thomas G. Hayes, the first mayor elected under the new charter, during the three years and a half of his term of office always insisted upon the rigid observance of the requirements of that instrument in most of its particulars—especially those relating to financial matters. Could he have combined a little more of the *suaviter in modo* with the *fortiter in re* which he so constantly exhibited, his administration would doubtless have been even more successful than it was.

In conclusion, should I be asked how the various municipal

reforms above enumerated have been obtained, my answer would be: By recognizing and for a number of years taking advantage of the following facts: 1. That in large cities elections can rarely if ever be carried except through the instrumentality of one of the two great political parties. 2. That whenever there are in any city enough of the voters to hold the balance of power between these two parties, who have been educated to know what municipal reforms are really needed, and who are so impressed with their need that in order to obtain these reforms they are always ready to vote for the candidates for municipal office, irrespective of their political affiliations, whose election will most tend to promote those reforms, and if these voters do not hesitate to let it be publicly known for whom they vote and why they do so, such voters always can and generally will succeed, sooner or later, in obtaining those reforms. How a sufficient number of voters can be best educated as to the need of any particular reform up to the point that will induce them to take the steps required to obtain it must depend upon the exigency of the occasion, but it can always be safely assumed that before any election the result of which appears to be at all doubtful, whenever the politicians know that there is an independent vote large enough to turn the scale either way, the party managers will always be ready to sacrifice much and to promise more in order to capture that vote. Although party pledges made before election cannot always be implicitly relied on, experience has shown that no party can safely afford to ignore them altogether. As an illustration of the permanent character of reforms obtained by the method above indicated, it may be mentioned that although Mayor Hayes by his course in various matters—notably by his firm refusal to permit the city officials and employees under him to be assessed for party purposes—had aroused the hostility of the managers of the Democratic party to such an extent that they determined to defeat his renomination at all hazards, yet the effect produced upon public opinion by the reforms accomplished under the new charter was so great that in order to succeed in their purpose of defeating him they felt obliged to put up as a candidate against him at the primaries our late mayor, the Hon. Robert M. McLane, who in his canvass not only publicly avowed his thorough sympathy with these reforms, but declared his purpose, if elected, to do all in his power to maintain them, and whose high personal character as well as his excellent record during four years'

service in the office of state's attorney furnished a satisfactory guarantee that all promises made by him would be faithfully carried out—as, in fact, they were down to the time of his sudden and lamented death in May, 1904. His successor, Hon. E. Clay Timanus, has up to the present time been discharging the duties of his office in the same spirit and along the same general lines of policy.

THE SIGNIFICANCE OF THE RECENT REFORM MOVEMENT IN PHILADELPHIA

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Chairman of the City Committee, City Party, Philadelphia.

The saying is attributed to Macaulay that "nothing is more humorous than the British public in one of its periodic fits of morality." The thinking people of Philadelphia are now considering whether the recent reform wave, which has reached what is probably its most complete expression in their own city, is a mere periodic fit, or a movement toward higher things with deep-abiding causes and permanent results. For some years the low condition of the political morale in this city has been the cause of widespread comment and criticism; nowhere has the censure been more strong than among the Philadelphians themselves, who may be suspected fairly of a large share in the responsibility for the then existing condition of affairs. The recent election resulted in a sweeping popular condemnation of government by the "Organization," and in order to understand the problem thoroughly, some explanation of this political machine is necessary.

The Organization is the term popularly applied to the irresponsible governing agency which, unknown to either law or constitution, has absolutely controlled the political destinies of Philadelphia during the past decade. Its backbone consisted of the fifteen thousand office-holders—municipal, state and federal—who in one way or another draw salaries from the public purse in exchange for public service. With the election to the Mayoralty of Hon. Samuel H. Ashbridge in 1899, every department was made tributary to its influence; its representatives and agents were to be found in every one of the eleven hundred election divisions of the city. No one could hope to receive public employment unless his application was viséd by his division leader and ward boss. Business men applying to the city authorities for the performance of those services

which the law imposes upon the municipality found in many ways that their applications were treated with scant courtesy unless they were in harmony with the Organization's representatives. The average citizen had been accustomed to follow the line of least resistance in politics; if he adhered to the cardinal maxims of the Organization, "stand pat" and "go along," he was sure of its help in obtaining for himself consideration for his requests and those petty favors such as railroad passes, transfers at schools, complimentary tickets to public entertainments, etc., for which the public have so long depended upon the politicians and which have become the politician's stock in trade in dealing with the non-office-seeking class. The Organization had thus become a vast business system in which the officeholders were the active agents, whose cardinal object was to perpetuate the system in power and themselves in office through their common action and influence.

That this system was dangerous to political independence was thoroughly recognized; that the result might be the establishment of an un-American political dynasty, which might in time lose sight of its responsibility to the people and of its accountability for the use of public purse, was nowhere denied; but in the years of the recent prosperity which Philadelphia, in common with the entire nation, has been enjoying, the average man of business was content to live under an autocratic government, since it left him absolutely free to devote the time to his own private enterprises. Occasionally there were protests heard, but these seemed of no effect. The newspapers of the city have performed a mighty task in keeping awake and prodding public sentiment at a time when even the most optimistic had lost heart. For many years a small group of men, chiefly college graduates, maintained the Municipal League, which was an honest and sincere attempt to organize a permanent municipal party in Philadelphia; but, although the League at one time succeeded in electing a few minority magistrates, yet it had no real strength with the mass of the people. The Democratic party, as the minority national party, might have done much to arouse public sentiment on municipal questions, but through the judicious use of minority patronage, the Organization seemed to be as securely entrenched in one party as in the other. Presently, however, secure in the possession of unlimited power, the Organization threw caution to the winds and entered upon a series of political blunders, of

which its recent repudiation by the people of Philadelphia was the only logical outcome.

Some years ago when the leader of the Organization and his associates were acquiring control of the city it had been their practice to select as candidates for public office business men of high personal repute, and to give to these officials a free hand in the conduct of their offices so long as the subordinates were brought into harmony with the Organization. In the flower of its strength, however, this policy was changed and in place of business men, ward leaders, whose only title to public confidence was the loyalty of their service to the Organization, were placed in power. At the time of the recent election the following important offices were in the hands of men who had received their reward for this cause and no other: Sheriff, County Commissioner, Recorder of Deeds, Register of Wills, City Treasurer, Receiver of Taxes, Harbor Master, Collector of Internal Revenue, Collector of the Port, and several of the magistrates. Coincident with this change in policy came the systematic debauchery of the political life of the city. There was little need of the registry of phantoms as voters, the padding and stuffing of ballot boxes, etc., as the overwhelming Republican majority was quite sufficient under ordinary circumstances to insure the success of any candidates on its ticket. The leaders of the Organization in private have always disclaimed the responsibility for fraud, claiming that it was due to the overzealousness of subordinates, many of whom manufactured majorities in their divisions with the hope of promotion or an increase in salary at the next distribution of municipal patronage. It would be difficult to prove, with the certainty which is required by the law, that these crimes were directly inspired by the leaders of the Organization, but the recent investigations have determined beyond the possibility of doubt that this evil was so widespread that it was inherent in the system and that the perpetrators of wrongdoing were directly encouraged and in many cases rewarded by the Organization which they served.

With this debasement of political morality, there went hand in hand an extraordinary decline in political ideals, especially among the younger men. The custom of the times and the environment suggested a cynical attitude toward political life. Ordinarily it might be expected that leadership in political thought will be recruited largely from among the attorneys whose profession places them in

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a position of special responsibility toward the public. All opportunities for public service, however, were closed to the members of this profession, and the other learned professions as well, unless they were willing to sacrifice every shred of independence of thought and action. The rewards for the worship of mammon were most tempting, and those who accepted of them were only too eloquent in justifying themselves by pointing out that the Organization was the necessary result of the logic of the times, and that those who advocated reform were not only morally insincere, but mentally deficient.

Such was the condition of things when in November, 1904, following upon the triumphant re-election of President Roosevelt, who received in Pennsylvania and in Philadelphia majorities unequaled in American political history, the Municipal League disbanded, first calling, however, a meeting of representative citizens at the Bourse, before whom the problem of municipal reform was laid and to whom the question was submitted. This meeting was attended by a large number of representative professional and business men, many of whom had taken no part in former political movements. Especially strong was the element which had hitherto been deterred from political action by the fear that in so doing they would unsettle the system of protective tariffs, which has been a potent factor in the development of Pennsylvania's industrial resources. The re-election of Mr. Roosevelt, however, convinced many honest Republicans that an attack could be made upon the local machine without in any way disturbing the economic policies of the nation. After a preliminary inquiry into the nature of the evils from which Philadelphia was suffering, a Committee of Seventy was organized for the purpose of leading in the fight for higher things. In the preliminary report, which became the basis for the future action of this committee, it was pointed out that the primal source of the misgovernment of Philadelphia lay in the existence of a thoroughly organized, but absolutely irresponsible, political association, which had complete control of the executive, administrative and legislative departments of the government, and which was even then engaged in reaching out its covetous hand toward the judiciary. To fight this Organization effectively, since no appeal could be made to any of the minority parties then existing in Philadelphia, a new party was brought into existence, called

the City Party. A preliminary skirmish was fought in February, when the City Party nominated candidates for offices in several wards, and also placed a magisterial ticket in the field. In order to prevent this new combatant from obtaining some of the minority positions in the magistracy the Organization determined to throw fifty thousand votes of its overwhelming majority to the support of the Democratic candidates. Such was the perfection of political discipline that this plan was carried out with absolute success, and as a result the city party ticket failed everywhere, with the exception of a few school directorships.

But although the first campaign culminated in catastrophe, yet there were many signs that public sentiment was awakening. Public meetings by the score had been held during this campaign, including noonday meetings for business people, and they had been attended with interest and enthusiasm by a large group of people who had previously been absolutely inattentive to their civic responsibilities. Moreover the policy of the Organization in throwing a large quota of its votes to the support of the Democratic candidates, alienated thousands of men who had hitherto tolerated its errors because of their opposition to the principles of the Democratic party. Scarcely had the smoke blown away from this battlefield, however, than the Committee of Seventy, under the guidance of unusually sagacious counsel, commenced a series of prosecutions of election frauds which definitely and conclusively exposed a condition of things which had previously been deemed impossible. It was proven that many election officers were pure myths, and that upon the occasion of an election, men with criminal records had been brought in as impostors from other divisions to serve as election officers, and then after the fraud was accomplished, had disappeared, leaving no trace of their identity. It was proven that when a ballot box was stuffed it was customary to enter upon the list of voters, which the election officers are required to keep, the names of assumed voters, copied alphabetically from the division list; it was proven that names had been voted upon, although their bearers had been dead for a long period of years, or when their owners were not naturalized citizens or had removed to other localities. It had long been suspected that such frauds were practiced in Philadelphia, but with proverbial conservatism the average Philadelphian was unwilling to give credence to suspicions that reflected discredit upon his rulers, until these facts

were made clear even to the dullest and most reluctant comprehension by testimony in the courts of justice. Moreover, the newspapers, with but a single important exception, gave time and space to the examination of municipal wrong-doing, and their admirable work thus paved the way for political revolution.

The passage of the Ripper Bill by the legislature whereby, after 1907, the control of the departments of public safety and public works was vested in councils rather than in the mayor, and the introduction of the proposed extension of the lease of the Philadelphia Gas Works brought public sentiment to a climax. For some months it had been apparent that the mayor of the city, Hon. John Weaver, was not in sympathy with the policy of the Organization, and when, in the desperation of his fight against the gas lease, the mayor dismissed his directors of public safety and public works and appointed men who were loyal to him and to the people, rather than to some outside political authority, it was apparent to all that the opportunity for the people of Philadelphia to regain their freedom had come.

During the summer months political leaders and reformers alike had reached the conclusion that reform was inevitable, but there was a wide divergence of opinion as to the method by which this reform should be accomplished. Upon the one side was a group of honest, well-intentioned men, who regarded Pennsylvania and Philadelphia as so overwhelmingly Republican in their national politics, as to render it necessary that the reform should take place by a movement within the party lines. This sentiment was assiduously encouraged by the leaders of the Organization, who withdrew their own ticket for the county offices to be filled at the November election, and offered to make terms with the Mayor by allowing him to replace a number of the ward leaders with men of his own selection. Upon the other side, was the independent sentiment of the community which regarded the City Party as providentially in position to espouse the people's cause. During the summer months the leaders of this latter party had entrenched themselves in a very strong position. Recognizing the weakness of the Municipal League, they had gone down into the divisions and wherever possible had organized an executive committee of seven men, representative of the best political sentiment in the division. From time to time public meetings were held and a campaign of political education on the

widest possible lines was inaugurated. It is to the eternal credit of Mayor Weaver and his advisers that they refused peremptorily the overtures of the Organization, recognizing clearly that there was no advance in principle in the mere replacement of one set of ward leaders who had been nominated in a large degree by one mayor with a second set to be named in turn by his successor. In the third week of September the Mayor announced his determination to oppose the Organization, and a few days later the City Party held its first primaries and its county convention. A full ticket was put in the field, and during the seven weeks of the campaign the fight was waged with unabated enthusiasm and vigor. In the heat of the battle it is probable that forty to fifty meetings were held nightly, ranging in size from a division meeting of neighbors called at a private house to mass meetings held in the largest halls of the city. It is probable that there never has been a local campaign in which so much literature was circulated. It may happen that the orator will appeal to prejudice and passion, but the wide circulation of statements of cold facts is the best possible proof that, after all, it was the reason of the voters which decided the issue. Noonday meetings were held at all of the large industrial establishments of the city, and thus the arguments reached the working classes.

And now that the campaign has been fought and won, there are a few general reflections which it suggests and which may be of value to other communities struggling for the " square deal " in government.

First. The value of the services rendered by the Committee of Seventy would indicate the necessity of a permanent non-partisan organization to perform the useful and necessary duties of public criticism upon the acts and policies of municipal servants. The office of censor, however distasteful it may be, is just as necessary under the conditions of modern life as in the days of the Roman Republic. If the business of the government is to be committed absolutely to the officeholders, it is to be expected that in time they will learn to disregard public sentiment. Moreover, the average citizen is very unwilling to bring to the attention of the public, evils that come within the scope of his own observation, when he must act alone without the support of any organized body. Under these circumstances, that which is the duty of every one is performed by no one,

and the public suffers. Moreover, it is a truism to-day that municipal questions are essentially non-partisan, and in order that this principle may be properly asserted it is indispensable that there should be some association containing representatives of all the partisan opinions in the community. It is much to be desired that, unlike its prototype, the Committee of One Hundred, the Committee of Seventy will continue in existence permanently.

Second. This election has demonstrated, more than any other which has ever been held in the United States, the independence of the average voter of partisan control when moral issues are presented. The disclosures which had been made to the public relative to the dishonest conduct of the elections and the jobbing in municipal contracts whereby the leaders of the Organization had personally profited, had aroused the spirit of righteousness in the community. While it would be absolutely untrue to state that no honest man voted the Organization ticket, or that the candidates on that ticket were personally in favor of graft or fraud, yet nevertheless the public mind saw clearly that the endorsement of the Organization ticket meant the continuation in power of the political leaders who had encouraged wrongdoing and had profited by it. In spite of tremendous pressure in favor of the personal prestige of the national party, whose leader, President Roosevelt, is deservedly most popular and esteemed in Philadelphia, as throughout the nation, disregarding the pressure which the Organization was able to bring to bear through corporation and other influences, and spurning the most blatant use of money for open bribery which has ever been attempted, the average voter was true to his convictions of right and voted accordingly. In this fact alone there must be profound encouragement for the student of American institutions. Surely many signs in business and financial life, as well as in politics, indicate a re-awakening of the puritanic sentiment in American life. Henceforth, no one can doubt but that in the long run the American people desire honesty in public as well as in private life, and will fight to secure it.

Third. The conditions in Philadelphia suggest the dangers of an office-holding oligarchy not only to the general public but to the office-holders themselves. Those who performed the bidding of the system were immeasurably the worst sufferers under it. When a municipal employee learned that his efficiency was measured by

his ability to carry his division by a round majority for the Organization, the service of the city suffered. When a municipal employee learned that the slightest evidence of political independence on his part would result in the loss of his position, his character suffered. Nor were these the only detriments. Gradually, as the Organization grew in power, the office-holders were assessed for political purposes, and many were compelled to pay dues for the maintenance of political clubs without receiving any return. Presently they were mulcted in a variety of ways for marching clubs, benefits, barbecues, and everything else which was necessary to maintain the prestige of the Organization. It has been demonstrated that many were accustomed to pay a percentage of their annual salary to the ward leader in return for his influence in securing for them their positions. Since the office-holders in the executive departments have been emancipated from this petty tyranny some have stated that their political assessments in one way and another had taken upwards of ten per centum of their annual income, while others have confessed that under the same influence they were dragooned into the commission of crimes from which their own right-thinking souls revolted. There is only one remedy for such a condition, and that is by municipal civil service, which shall be as rigid and as efficient as that which is in vogue in the federal service. Anything short of this may result in a temporary gain, but a permanent and lasting benefit will be impossible.

Fourth. This campaign has brought to the front a large group of young men in whom to-day is the chief hope for the future. In the early months of the City Party struggle the prosperous business man was conservative as to the outcome; the demands of his business made him prudent, and the failure of earlier reform movements rendered him doubly cautious. From the outset the fight has been forced by young men who were not looking for office, and hence were not susceptible to the usual inducement which the Organization has had to offer to placate its opponents. To my mind the most serious error of the Organization, in an examination of its political history, was the absolute neglect of this group. The truculent flatterer was always welcome to its entertainments, and the office-seeker, whose quest made him subservient without limit, was always known to its advisors; but the young man of independence and spirit, whose ideals of political life have been formed

largely upon the models suggested by Theodore Roosevelt and Joseph W. Folk, found all the doors to political activity closed by the Organization and its agents. Indeed for many years in Philadelphia at the average primary election only the office-holders have voted; the party machinery in divisions has been controlled by the office-holders; the nominating conventions have been attended by the office-holders, and the independent has been told that he must either "go along" or be impotent as a political factor. It was only a question of time when the independent would discover his power, but it is now an evident fact in Philadelphia that the Organization and its methods are doomed, and that even the overwhelming Republican sentiment of the city will not give success to the candidates of the Republican Organization unless the party rules are so liberalized as to admit those who desire freedom from party control on municipal questions.

Fifth. The relation of the public service corporations to the municipality was one of the burning issues of the campaign, and there is much reason to believe that Philadelphia is now in position to attempt the solution of this problem. One of the essential characteristics of the City Party movement was its absolute sanity. While the voice of the demagogue was occasionally heard and sometimes his hand could be seen, yet at no time was his influence in control of the movement. It was an organization composed of the more conservative and honest citizens of the community, and as a result the city is now in position to attempt the solution of the corporation problem, without the danger of the radical action which has sometimes accompanied a popular triumph. It is the spirit of Lincoln rather than that of William Lloyd Garrison which has been moving in our midst. All thinking men recognize that the public service corporations perform an indispensable service to the community. The vast majority are agreed in demanding some adequate business return. It will be infinitely better for the corporations to render a proportion of their income in the form of legal taxation to the community which makes them profitable than to submit to illegal extortions in the way of tribute or blackmail to a dominant political machine.

Sixth. The final conclusion is, that the prevailing notion that the average citizen is not interested in the details of the political world whereby he is governed is now an exploded illusion arising

out of former conditions. The average citizen was negligent of his duties, largely because the Organization encouraged his negligence. It was the policy of the Organization to encourage the impression that politics was a fine art in which only the absolute masters of its technique could engage. In the brief space of nine months the people organized a new party, perfected over one thousand division associations, elected their own division officers, held a primary election which was attended by over forty thousand citizens, recorded their convictions through a convention which was absolutely free and untrammeled and forever disposed of the Organization charge that an unbossed convention would be a disorderly mob. In addition to this wonderful interest in the details of politics, the campaign was absolutely supported by popular subscription. More than one hundred and twenty thousand dollars passed through the treasury of the City Party, and of this amount not one cent was collected by political assessment upon office-holders or by contribution from corporations. Nor was this sum contributed by the beneficence of a few millionaires. The largest single contribution was five thousand dollars, and more than three thousand individuals contributed in sums ranging from this figure to twenty-five cents, in order that they might show their interest in the cause. It is probable, therefore, that the historian of the future, in estimating the benefits of this unique campaign, will conclude that the chief good was educational; that the people of Philadelphia manifested an interest in the reform of their government, which led thousands to make sacrifices of time and money in order that they might raise their city from the obloquy into which it had fallen.

MUNICIPAL PROGRESS: 1904-1905

By Hon. Clinton Rogers Woodruff.
Secretary National Municipal League.

For some years there has been a slowly growing conviction that the trend in municipal affairs in our American cities is toward improvement—a conviction which was materially strengthened by the results of the elections of November, 1905.

In New York, District Attorney Jerome was re-elected by a substantial plurality, although he was not the nominee of either of the three parties in the field and had no permanent or far-reaching organization at his command. This demonstration of the power of the people was most impressive and illustrates what can be accomplished when they are thoroughly aroused, but it is not to be concluded that it will be possible to repeat the experiment successfully year after year, because the conditions surrounding our municipal elections are such as to make independent demonstrations most difficult.

The Jerome vote is significant, however, of the voters' growing independence of party lines and of their dissatisfaction with existing conditions. The large vote for William R. Hearst and his colleagues of the Municipal Ownership ticket tells the same story. No one in the summer months of 1905 anticipated that there would be any great amount of interest in the New York mayoralty campaign. The renomination of Mayor McClellan was a foregone conclusion. The fact that his administration had been free from conspicuous scandals and was generally conceded to be one of the most, if not the most, efficient under Tammany rule, and the further fact that New York was normally Democratic, created the impression that Tammany would prevail by a safe majority and elect its whole ticket. The subsequent failure of the opposition forces to fuse tended to strengthen the belief in McClellan's easy re-election.

Political leaders failed to take into consideration, however, the great and spreading discontent of the masses with "boss" rule and with the prevailing conditions which, in their minds, were responsible for the insurance and similar scandals. Moreover, the sentiment in favor of the municipal ownership and operation of municipal monopolies had grown more rapidly than even the most careful and competent observers appreciated.

Mr. Hearst's nomination happened at a propitious moment, and from that time on to election day his adherents increased in number and his campaign in effectiveness, and at this writing it is generally believed that he actually secured a plurality of the votes cast in New York on November 7th.

The significant facts, then, in New York are the substantial plurality given Mr. Jerome in New York County without the aid of any political organization, except one hastily formed for the campaign and disbanded after election, and the vote for Mr. Hearst with the support of an organization, hastily gathered together and inadequately equipped.

In Philadelphia the independent canvass took an entirely different form, but the lesson is no less obvious. The City Party, organized last winter by the Committee of Seventy, was designed to afford the opponents of the "Organization" an opportunity to give voice and effect to their opposition.

At the February election it failed to elect its candidates on the minority ticket because of the help afforded the Democratic candidates by the Republicans. This defeat, however, failed to dampen the ardor of the City Party or to lessen the interest in its purpose. Composed as it was in good part of men who for years had been identified with its predecessor, the Municipal League, and who were enlisted for the fight, whether it required one campaign or many, it pressed forward to defeat the "Organization." When Mayor Weaver's break with the Republican machine brought on the municipal revolution which has startled and commanded the attention of the country, the City Party was in the field, ready to give organized expression to the aroused public sentiment.

The summer months were used in perfecting and extending the work of organization, so that by September there was a fully-equipped municipal party with candidates representative of the widespread demand for a radical change in local political conditions.

The issue between the City (or municipal) Party and the Republican "Organization" was made all the clearer and more distinct by the withdrawal of the original Republican candidates and the substitution of clean men in their place. It was therefore possible to conduct the campaign on the principles involved without any personal issues to complicate the situation. The fact that the voters of Philadelphia, after a long campaign, clearly and unmistakably endorsed the course of Mayor Weaver and emphasized their rejection of the Republican "Organization" and its autocratic and arbitrary rule of municipal affairs is significant because it plainly showed that the people of Philadelphia could be aroused and could prevail. Doubt on both these lines had been created because of long years of apparent apathy and indifference.

In Cincinnati there were no special revelations of scandals and no sensational exposures of corruption, but the voters, on the sole issue of "boss" rule, defeated the candidates of the Republican organization. Republican Cleveland for the third successive time elected Mayor Johnson, a Democrat, because of its approval of his municipal policy. Toledo elected an independent candidate for Mayor and all his colleagues on the ticket. Boston, or, more properly speaking, the County of Suffolk, elected a District Attorney on an independent ticket against a candidate who was on both the Republican and Democratic tickets. James G. Cutler, who had made an admirable record as Mayor in Rochester, N. Y., was re-elected by an overwhelming majority. Other cities recorded victories of equal significance, if less importance.

I have cited these several instances of independent victories at the November election to show how general was the repudiation of "boss rule," how widespread was the unrest of the people under existing conditions and how strong was the growth of independent municipal sentiment. These instances would be of but limited significance and importance, however, were it not for the fact that they represent the culmination of a series of similar instances. During the year preceding the November (1905) election there had been a very considerable number of important and striking evidences of the independence of the people, of their restlessness under machine rule, and of their desire for a change.

Chicago, which went strongly Republican in November, 1904, swung over to the Democratic side in the mayoralty election in

April, and in the following November went back to the Republican side on local issues.

In the local elections in Iowa in 1904 the returns from fifty-seven cities showed that in three there was no opposition to the re-election of the incumbents; that in seventeen cities the candidates on independent ticket were elected, and that in nine others the independent tickets were in whole or in part elected. Some of the returns gave no clue as to the partisan character of the nominations, as in Marshalltown, where all the candidates were nominated by petition.

The story of the elections in Indiana in 1904 is equally remarkable. Crawfordsville and Warsaw went Democratic for the first time. In Terre Haute the Republicans defeated the Democratic incumbent. Fifteen cities ordinarily Republican, were carried by the Democrats. These local victories had no important effect on the national elections, as the various communities helped to swell the large Republican vote in the Presidential election.

The local elections in Kansas in 1905 witnessed the election of a number of Democratic mayors in Republican cities. For instance, Kansas City, which gave Roosevelt a plurality of 4,000 in the preceding November, elected a Democratic mayor by 300. Ottawa, a Republican city, elected a mayor on the municipal ownership issue.

In Pennsylvania the usually Republican cities of Reading, Allentown, Williamsport, Wilkes-Barre, Erie, Titusville, Chester, Johnstown and Monongahela elected Democratic officials. Portland, Ore., in the November election of 1904, gave Mr. Roosevelt an unprecedented majority and elected a Democratic Sheriff by 6,000 plurality.

The Minneapolis election of November, 1904, was, perhaps, the closest in the history of the city, but the result, although the margin was very small, was eminently satisfactory in that it resulted in the election of David P. Jones, the Republican candidate. Although nominated by the Republicans on a direct primary vote, Mr. Jones was distinctly a candidate of the independent element of the city. The things which he stood for in the way of municipal reform were not entirely endorsed by the business men, but the common people understood that he was primarily interested in the welfare of the city and looked first of all to that. It is conceded that his victory was one of the moral forces over the aggregation of the forces of unlawfulness and the saloon men and gamblers and those seeking franchises on inadequate terms. The same campaign committee

which worked for the Republican candidate for Governor, who was defeated, was hostile to Mr. Jones's election; the result was that the political machine in Hennepin County was completely defeated in that it failed to elect its Republican Governor and failed to defeat Mr. Jones.

The instances recited covering, as they do, nearly two years of time and a large number of communities located in various parts of our country, all point to the conclusion that people are beginning to act upon the doctrine long preached by municipal reformers that municipal affairs must be divorced from state and national issues, and that local questions must be considered without reference to state or national politics.

It does not necessarily follow, however, because the people are to an increasing degree manifesting political independence that there is an accompanying improvement in administrative efficiency. We must look for other evidences to justify the contention that our municipalities are much better governed now than they were thirty, twenty, or even ten years ago. Very often an independent victory results in a temporary loss of efficiency, because of the introduction of new men into public service unacquainted with the detailed needs of a community and unfamiliar with the administration of public affairs. Communities, however, are usually willing to pay this price if they can be assured of the honesty and public spirit of those whom they have put into office. Chicago affords the most striking illustration of the fact that it is possible to have a very large measure of representative government and municipal reform and yet a comparatively inefficient administration.

The functions discharged by the average American municipality have very greatly increased during the past generation. A comparison of the budgets of the present year with those of the early 70's, let us say, in any American city would disclose the fact that the cities are now engaged not only in more extensive undertakings along already established lines, but are entering into many new fields of endeavor unthought of at that time. So rapid and engrossing has been municipal development in the last few decades that the average man, even the student, has failed to appreciate how important a factor in our daily life the city has become.

This tendency has unconsciously, but none the less effectively, worked mightily for improvement in the administration of municipal

affairs, so that it is not an uncommon thing to find recorded, as has been recorded in New York City during the past year, a denunciation of political methods and an appreciation of the improvement in the administrative service of the city.

To be sure, improvement along these lines cannot be measured with a yardstick, nor weighed on the scales, but must be gathered from a multiplicity of facts and expressions of those possessed of a gift of comparison and of a sufficiently long memory. For some months past I have followed with much interest the change in the tone of commentators on municipal affairs and the titles given to magazine articles and editorials. All tend to confirm the conclusion I have long held that a new spirit is abroad in our cities and that the average worker for municipal improvement is disposed to take a hopeful view of the situation, and that conditions really are improving.

As indicating the present day view of municipal conditions, I might quote the titles of some recent editorials and articles: "The Day Dawns," "Conditions are Getting Better," "The Growing Improvement in Municipal and State Government," "A Municipal Easter at Hand," "The Rising City Tide," "Municipal Housecleaning Elsewhere," "The General War on Machines," "The New Note in Politics," "A Year of Municipal Advances," "City Government Growing Better." Moreover, within the past year I have sought the views of a number of observers located in different parts of the country, asking them specifically whether my own conviction that there was a slow but steady improvement in American municipal conditions was justified by their own observation and experience.

The replies were uniformly in the affirmative. While it is true many felt that the local conditions with which they were most familiar showed little or no change, nevertheless their judgment was that conditions elsewhere were improving. This apparent paradox is explained by the fact that as to their local conditions they lacked the necessary perspective; as to events in other communities than their own, they saw things in a more correct perspective.

There is no denying, even if one were disposed to do so, that President Roosevelt's attitude, as Mayor Weaver, of Philadelphia, pointed out in a recent speech, has helped mightily in creating a public sentiment intolerant of dishonesty and chicanery in public affairs. I have been surprised at the unanimity of expression on the part

of those from whom I have inquired that the activity of the governors in the Central West, along what are commonly called "good government" lines are primarily and directly due to the President's example.

The attitude of Secretary Root in the Philadelphia campaign, of Secretary Taft in the Ohio campaign and of Secretary Bonaparte in the Maryland campaign afford additional evidence of the growth of independent thought in the consideration of local matters. Until within the past few years were a Cabinet officer to attack, even by indirection, his party organization in any community, no matter how corrupt or malodorous it might have become, it would have been considered heresy. Now it seems to be a popular move for them and for others high in office to throw their influence upon the side of decency and honesty.

Municipal progress is manifested in still a different direction, namely, that of concrete reforms. As never before our municipalities are giving thoughtful and careful consideration to their charters. We are passing through a period of widespread dissatisfaction with the existing inadequate legislation governing our American cities. The demand for home rule grows apace. One by one our cities are achieving it. Where this is not possible because of constitutional limitations, improved charters are coming to be adopted and amendments to them resisted because of disinclination to state interference. To mention only by name the various cities during the past two or three years that have had under consideration either a new charter or amendments to existing instruments would be to fill two or three pages of this volume. It is true that not all the changes have been for the better, but our communities are feeling the need for change, and as this grows there will be steady improvement, with only such setbacks as the desire for experimentation or inexperience may cause.

Ballot reform has become an issue of far-reaching importance. The last election served to give it renewed force and prominence. The demand is becoming general that each voter shall mark the name of each candidate he desires to vote for. Hand in hand with the demand for ballot reform is the growth of interest in nomination reform. The conviction is very general that the present systems of nomination prevailing in the majority of the states are antiquated and better adapted to giving expression to the wishes of

the few than to expressing the will of the majority. In some states new primary election laws have been enacted and will go into force during the coming year, notably in Illinois and Wisconsin. Nomination reform is also a prominent question before the voters of New York, Pennsylvania, Ohio, Indiana, Wisconsin and Michigan; and most of the Western States have already made some tentative effort in the solution of the problem.

The whole subject of the municipal ownership and operation of municipal monopolies has become a paramount issue in nearly all of our larger communities. The Chicago election of 1905 turned upon the attitude of the candidates on this question. Mr. Hearst's phenomenal campaign in New York was largely based on the demand for municipal ownership, and was unquestionably helped by the rapidly growing conviction that municipal monopolies should be administered for the benefit of the many rather than for the profit of the few. Mayor Johnson's repeated successes in Cleveland are largely due to the same cause; also to the additional fact that he is giving the people of that city an increasingly efficient government.

Just what is to be the outcome of this demand for municipal ownership it is impossible to forecast, but there can be no question of the interests of the people in it and of the further fact that it is destined to increase still further their interest in municipal problems.

Another evidence of municipal progress is the growth in the number of courses in municipal government offered not only in our institutions of higher learning but in our high, secondary and elementary schools. A decade ago practically no instruction in these subjects was given. Now at least twenty colleges and universities offer more or less elaborate courses, and the subject is treated more or less fully in as many more. Instruction in civics is becoming a pressing question among educators, and the interest manifested in the report of the National Municipal League Committee on Instruction in Secondary and Elementary Schools may be taken as a fair index of the interest in the subject.

I have omitted, up to this point, making any reference to the growth in numbers and influence of the organizations wholly or in part interested in the considerations of municipal questions. Now, more than ever, this subject is receiving consideration at the hands of chambers of commerce, boards of trade and other similar bodies, as well as from a rapidly-lengthening list of municipal leagues, good government and city clubs, and civic associations.

As I have already said, the progress of interest and activity in municipal affairs cannot be measured by any ordinary standard; but those who have given the subject thoughtful attention during the past fifteen or twenty years are strongly of the opinion that public interest is being developed along wholesome and encouraging lines and that the years 1904 and 1905 may properly be considered as recording wider and more substantial progress than any two preceding years.

The Relation of the American Municipalities to the Gas and Electric Light Service

A SYMPOSIUM

City of New York.—Robert Grier Monroe, former Commissioner of Water Supply, Gas and Electricity.
Chicago.—Hugo S. Grosser, City Statistician, Chicago, Illinois.
St. Louis.—
Boston.—Edward M. Hartwell, Secretary Statistics Department, Boston
Cleveland.—F. E. Stevens, Secretary Municipal Association of Cleveland.
Buffalo.—
New Orleans.—James J. McLoughlin, New Orleans, La.
Milwaukee.—John A. Butler, Milwaukee, Wisconsin.
District of Columbia.—
Newark.—
Providence.—Sidney A. Sherman, Providence, R. I.
St. Paul.—
Grand Rapids.—Delos F. Wilcox.
Seattle.—Professor J. Allen Smith, University of Washington, Seattle.
Duluth.—W. G. Joerns, Duluth, Minn.

CITY OF NEW YORK

By Robert Grier Monroe, Former Commissioner of Water Supply, Gas and Electricity.

Gas and electric service in the city of New York is furnished by private corporations. The New York Gas Light Company was incorporated in 1823. That was the first. The Manhattan Gas Light Company followed in 1830. In succeeding years one company after another was chartered to make and distribute gas and later electricity. Franchises have been freely given by the legislature on the theory that the public would benefit by competition. To insure competition some of the charters contained clauses prohibiting combinations and transfers of franchises. Rival companies have, however, found it more advantageous to combine than compete, and consolidations exist irrespective of specific prohibitions. In the borough of Manhattan both illuminants have been absorbed by a single corporation, and there is no rivalry

even between producers of gas and producers of electricity. The Consolidated Gas Company of New York controls all the gas and electric light facilities in the borough of Manhattan, as well as all gas and electric light facilities in the more important sections of the borough of the Bronx. The Brooklyn Union Gas Company, another consolidation, covers the borough of Brooklyn, the second largest borough and so through the city.

Public lighting is one of the heaviest yearly charges the municipality has to meet. For sometime the cost has exceeded $3,000,000 annually. On the supposition that independent competing companies operated throughout the city, section 530 of the Greater New York Charter directs that all contracts for city lighting have to be made after public bidding. In December, 1902, near the close of the year, customary advertisements were published in accordance with the provisions of the city charter, asking for bids for lighting the streets and public buildings of the city for the ensuing year, 1903. When the bids were opened, it was found that the same prices that had been offered in previous years were again submitted, and that throughout the five boroughs, there were no opposing bidders for supplying the same class of light to the same district. The statutory provisions as to public advertisement had been complied with, but as there was no real competition, such bids afforded no practical test of what was a fair and reasonable price. The city officials then in power, not being satisfied after investigation that the prices offered by the monopoly were fair and reasonable, rejected all bids.

For two years and a half the streets have been lighted and public buildings supplied with gas and electricity without contracts between the city and the lighting companies; nor for this period have bills presented for city lights been paid or adjusted. When the 1903 bids were originally rejected, the city did offer to make substantial payments, without prejudice, from month to month, as the service was rendered, leaving the companies in position to bring suit for whatever balance they thought due them, in order that what was a fair and reasonable price might be judicially determined. The monoply has not been willing to sue on a *quantum meruit*. The lighting companies let the year 1903 go by without suit, with the expectation that if the fusion administration, then in control, could be beaten at the polls, the succeeding Tammany administration would pay their claims in full. But later, difficulties arose in the way of settlement even under the Tammany administration. In October, last, an adjustment was practically arrived at by the comptroller and the commissioner of water supply, gas and electricity, with the managers of the monoply, and arrangements made for paying all claims of the companies in full, less interest. The proposed settlement was, however, so obviously against the interest of the city that it aroused public sentiment, a sentiment so strong that it not only prevented the "compromise" as it was called, from being carried out, but also induced a reluctant legislature to appoint a committee to investigate the entire light situation.

By joint resolution of the Senate and Assembly a legislative committee was directed to examine into the organization and operation of the gas and electric lighting companies, the reasonableness of their charges, the circum-

stances conected with the recent negotiations between the companies and the city officials, and to report the "result of their investigation with such remedial measures as it may deem proper." After an investigation, conducted with entire fairness and marked ability, the committee reported back to the legislature on April 29, 1905. Evidence brought out by the committee showed clearly that the companies holding a monoply, which extended over the entire city, were largely over-capitalized. Referring to the Consolidated Gas Company, the committee said:

"The fact that the company, by rendering competition impossible, has been able to earn large dividends does not justify it in adding to the value of its plant an additonal amount for good-will or earning capacity and thereby justify a continuance of excessive charges. If this were permitted it would be able to secure in perpetuity the maintenance of exorbitant rates. Extortion for a series of years would be the sufficient excuse for further extortion. Indeed, there would seem to be no escape from the conclusion that successful imposition upon the public would warrant increased charges upon the ground of enhanced good-will. The company is entitled to a fair return upon its capital actually invested, but it is not entitled to capitalize its grip upon the public."

The committee recommended that the price of gas for the boroughs of Manhattan and Brooklyn and part of the Bronx be fixed at a maximum of $0.75 per thousand cubic feet; that in the same boroughs the price of electric current be fixed at a maximum of $0.10 per Kilo-Watt hour, and that the price for 2,000 c. p. arc lamps be fixed at $100 per lamp per year. This was a reduction from the then prevailing price of gas of 25 per cent. and 33½ per cent. on charges for electricity. The committee also recommended the appointment of a permanent state commission with power to regulate the supply and price of gas and electricity. The legislature enacted laws reducing the price of electricity as recommended by the committee. A bill reducing the price of gas to general consumers was defeated, but a bill was passed reducing the price of gas sold the city. A law providing for a permanent commission was also passed. The commission has not yet entered upon the performance of its duties, but it has power to render the public effective service.

To further guard against extortion, the city is now deciding upon plans for the construction of a municipal electric lighting plant for lighting the streets and public buildings.

CHICAGO.

By Hugo S. Grosser, City Statistician, Chicago, Ill.

The Gas Service.

The gas service in the city of Chicago is furnished entirely by private enterprise which rests in the hands of one of the most powerful monopolies in this country; the People's Gas Light and Coke Company. This company, which obtained its grant in 1858, has the most all-embracing blanket-franchise ever granted to any corporation at any place. It merely grants to the company the right to lay their gas mains and sell gas in all Chicago without any limitation whatsoever of time or of place. It does not contain any pro-

vision as to the quality and the price of gas, as to the extension of its mains, or payments to the city treasury, nor any obligation to furnish light for public purposes.

Originally, this company started with a capital of $500,000, which in 1865 was increased to $4,000,000. To-day they have a total capitalization of more than $68,000,000, consisting of about $33,000,000 of stock, and $35,000,000 of bonds outstanding. They pay a dividend of 6 per cent., and the only contribution to the public treasury is their regular property tax. Some of the companies that had obtained their franchises in territory outside of the city of Chicago were in some instances regulated as to the quality and the price of gas; and in 1891 a contract was made between the various companies originally merged in the People's Gas Light and Coke Company and the city of Chicago, providing that the price of gas to private consumers should be one dollar net per thousand after 1896, and that the companies should pay the city 3½ per cent. of their gross receipts from the sale of manufactured gas.

In 1901 a new contract was made providing that the People's Company should furnish gas to the city at a price for the year of $350,000, the city agreeing, at its own expense, to attend to the lighting, cleaning, extinguishing and furnishing the lamps.

The compensation to be paid the city by the People's Company was 3½ per cent. upon the gross receipts from the sale of manufactured gas during the year, together with an additional 5 per cent. to be paid by the Fuel Gas Company, a company also part and parcel of the People's, said percentages in the aggregate not to be less than $375,000, leaving a balance to the city's credit of $25,000 for the year.

This balance was to be expended toward the equipment of 25,000 street lamps with incandescent burners and mantles. The agreement provided for the examination of accounts by either of the parties, and also that the obligation of the People's Company to pay the city should terminate upon any attack by the city upon the rights, privileges or franchises exercised at that time by the company.

October 15, 1900, the City Council passed an ordinance regulating and fixing the price of gas at a maximum rate of seventy-five cents per thousand cubic feet. The People's Gas Company, of course, strenuously resisted this ordinance, and fought it in the courts. The United States Supreme Court finally (last December) decided that the company had no contract rights in the premises, and that rate and other regulations could be ordained by city or state legislative bodies as may be the case. In order to remedy a doubt as to whether the city has the power to regulate gas rates, not having been especially authorized to do so, the last legislature passed a law conferring upon the city of Chicago power and authority to fix the rates and charges for the supply of gas by any company in the city. This law will be submitted for approval to the voters of the city next November, and will, no doubt, receive an immense majority, giving a rate of seventy-five cents as against $1.00.

Meanwhile, however, the People's Company cancelled the contract entered into with the city in 1901, upon the claim that contrary to its provisions the

city had attacked its rights and privileges. Since then there has been no agreement between the city and the company; the city has paid nothing to the gas company on account of gas furnished for street lamps, etc.; the company has not paid any compensation to the city, and the present relation of the city of Chicago to the People's Gas Light and Coke Company is in every way not only unpleasant, but amounts to veritable warfare.

The Electric Light Service.

Entirely different from the gas situation are the conditions in the electric light service. This at least, so far as public lighting is concerned, is furnished by the city itself, while private lighting is furnished by private enterprise. Up to the present time the city was not authorized to sell electric light to private consumers, but last winter the state legislature embodied in the law referred to before, a provision empowering the city to sell surplus electricity for light and power, without enlarging its present power to own, construct, or acquire electric lighting plants. It has been estimated that the city will be enabled to sell a considerable amount of electricity, its plants being sufficiently large to produce much more than actually needed for municipal purposes.

The city began to manufacture electricity for lighting streets as early as 1887. At that time the work was under the supervision of the commissioner of public works, and the lighting bureau remained in that department until 1898, when the present department of electricity was created by ordinance of the council, and placed in charge of the city electrician, an officer appointed for two years by the mayor with the consent of the city council. This department has also charge of the police and fire alarm telegraph. All its employees, with the exception of the city electrician, are absolutely under civil service.

The capital needed for the enterprise was entirely raised by taxation in the general appropriation bill. In the first year, the total expenditure amounted to only $39,976.25, which was sufficient to erect a power house and place 105 arc lights in operation. At the end of the first ten years, the city had expended for construction and operation a total of $1,693,222.51, and operated 1,054 arc lights. At the beginning of this year, the city has three power plants, and operates 5,034 arc lights. The total net expenditures for construction and operation until and including December 31, 1904, were $4,098,837.38. This does not include interest on the money expended, which must be added to the actual expenditures, and amounts to $1,274,000.27, making the total amount involved $5,372,837.65.

The average yearly cost per light was $55.16 in 1904, and during the last five years varied but little, depending upon the price of coal. In this cost, of course, all expenses are included except interest. The city still rents a few arc lights—698—from private companies at a rate of $103 per light per year. Since 1887, when the rental was not less than $200 per light per year, the price has been steadily reduced year by year, but is still almost twice as great as the price of the municipality operated lights. If the city had rented all its lights during the entire time at the rate paid for each year, it would have

expended a total amount of $4,677,345.50. The total interest of the cost of the rented service would have been $1,142,513.28, making the total amount involved $5,819.858.78, showing an amount saved by the city of $447,021.13, and the city has its plants as an additional profit or asset, representing a value of $3,207,179.94.

There were in operation December 31, 1904, a total number of lights of every kind of 37,222, of which 24,951 were gas lights, 6,478 gasoline lights, 5,098 electric lights operated by the city and 695 rented electric lights. All these lights produced 12,858,000 estimated candle power, at a total cost including all expenses for city lighting of $936,482.20.

The private light service is furnished, as stated before, by private enterprise, and is in the hands of several companies, the largest of which is the Chicago Edison Company, controlling the greater part of the electric business in the city. Its relation to the city of Chicago is much like that of the People's Gas Light and Coke Company. It obtained its franchise piece-meal in the various towns afterwards annexed to the city of Chicago, almost without condition. Municipal authorities have no control over the accounts of the company; it pays no compensation to the city, and can do almost what it pleases except as to the physical conditions in the streets, etc. It owns four central electrical power stations, with an indicated horse-power of more than 40,000. It was organized in 1887, and holds a perpetual license from the Edison Light Company of. New York to use all its present and future patents in consideration of the parent company being given a percentage of all issues of securities representing new capital.

The Edison Company has an authorized capital stock of $15,000,000, and has outstanding bonds of $6,983,000. Since 1889 it has paid 8 per cent. in quarterly dividends. Its gross revenues during the fiscal year 1904-05 were $4,051,082; its operating expenses, $2,627,468.

The Commonwealth Electric Company, which practically is part of the Edison Company, having the same president and almost identically the same directors, is capitalized at $13,250,000, and obtained its franchise in 1897 for a term of fifty years. The franchise contains a provision as to charges, prohibiting a charge exceeding 1 per cent. per hour. A maximum charge is provided of $10.50 per month for each arc light of 1,600-candle power when operated the entire night, and of $7.50 per month when operated until 12.30.

The company is held to pay a compensation to the city treasury of 3 per cent. of the gross revenues after the expiration of five years, and since it began operations it has paid into the city treasury the sum of $93,134.95.

Another of the larger public service companies is the Cosmopolitan Electric Company, which obtained its franchise in 1895 under similar conditions. In order to show the character of franchises granted to electric light companies during the last few years, I quote that of the Dearborn Power Company which obtained its franchise in March, 1903, and an amendatory franchise in April, 1905. The franchise is "For the purpose of supplying electricity for light, heat and power" within a limited territory. The rights are granted for a period of ten years, and may be terminated at any time prior at the discretion of the mayor. During the life of the ordinance the

company pays to the city of Chicago 10 per cent. of its gross receipts, and the city authorities have access to the books and accounts of all fiscal operations.

The company is prohibited from selling, transferring, assigning or leasing, or entering into any agreement so to do, any of the rights granted without first obtaining the consent of the city of Chicago thereto. The city reserves the right at any time prior to the expiration of the term to take over the property, and operate the same as a municipal enterprise, paying therefor the then cost of duplication less depreciation of the property, but nothing for earning power or franchise values, the purchase price to be determined by appraisement. There are about twenty of these smaller companies furnishing electrical light within greatly limited territory, whose franchises are of nearly the same character as the one quoted.

ST. LOUIS

The Gas Service.

The gas lighting service of the city of St. Louis is furnished by a single private enterprise, the Laclede Gas Light Company. From 1846 to 1873 there was only one company, the St. Louis Gas Light Company. The territory of the city was then divided; the Laclede Company supplied the northern, and the St. Louis the southern district. In 1890 the Laclede Company bought out all the stock of the other company and is now operating under its charter. This company has no exclusive franchise, and any other company may organize under state laws and obtain permission from the city to lay pipe lines, etc. The acts of the legislature simply authorize the gas company to lay pipes and appurtenances, and to enter into contract with the city or others for furnishing gas. The city makes a contract for lighting the streets, public places and public buildings, with gas, gasoline and electricity, prescribing the districts in which the different methods are used. The contractor obtains gas from the gas company under private arrangement with this company.

The general taxes are assessed on the valuation of property and effects the same as on all other property. The amount for 1904 was $1,441,783.15. Under contract of February 28, 1873, the maximum price per thousand cubic feet was fixed. This contract expired May 1, 1890, and at that time the municipal assembly tried to fix a maximum price for gas furnished to private consumers. In the litigation which followed, the Supreme Court held that the municipal assembly had no right to fix this price. At present the prices charged for gas furnished the city and to private consumers are: Light, $1.10 per thousand cubic feet; fuel, 90 cents per thousand cubic feet with 10 per cent. discount if the bill is paid within ten days after its date. There are no free lights. The board of public improvements, under the contract for public lighting, fixes the location of all lamps and in that way fixes the number of lamps per mile. If necessary to remove the lamps, the cost is paid by the city at contract price. The city at present does not have the right to purchase the gas plant.

The Electric Light Service.

The electric light service is also furnished by private enterprise, though some of the public buildings are supplied from plants in or near these buildings. The general taxes on the valuation of property and effects are the same as on all other property and effects. Practically all the electric light and power companies are consolidated; that is, the capital stock of the company is held by the stockholders of the controlling company or plants, and franchises are leased by said company. The amount of taxes paid in 1904 was $12,310.36, also 5 per cent. of the gross receipts of each company. The aggregate amount received during the last fiscal year was $73,300.04. The prices charged for public and private service are not controlled by the city. The standard price at which the companies contract to furnish current for lighting and motor service is two Kilo-Watt hours per sixteen c. p. lamp, or equivalent at ten to twelve cents; but in special cases other rates are made. Under the contract for lighting the streets, alleys and public places, the board of public improvements designates the location and number of lamps. The city has reserved the right to purchase the conduits under grant of franchises, but no rights have been reserved to purchase the plants. The companies are liable on penal bond filed with the city register in the sum of $20,000 with approved securities. The officials are also liable for violation of the provisions of the franchise, subjecting them to fines of not more than $500. There are also penalties for illegal use of the wires, removal of wires, stringing of wires without permission, etc.

BOSTON

By Edward M. Hartwell, Secretary Statistics Department, Boston.

The history of the Boston gas companies as regards their charters, quarrels and consolidations, is a tortuous and intricate one. At present the city of Boston has no gas works or electric lighting works of its own, and exercises no special control of the companies from which it purchases gas or electric light for lighting its streets, parks and public buildings. Such companies pay nothing to the city for the right to do business, and stand in the same relation to the city with respect to taxation as other business corporations. They make no special reports to the city government, which has no jurisdiction over their accounts or reports. Gas and electric light companies, however, are subject to oversight and control by the Board of Gas and Electric Light Commissioners of the Commonwealth of Massachusetts.

In accordance with legislation passed last winter, gas is now furnished in those sections served by the newly consolidated companies for 95 cents to private consumers, and $0.7930 cents per thousand feet to the city for its public buildings. After January 1, 1906, the Consolidated Company will furnish gas at $0.90 per thousand to private consumers, and $0.7430 per thousand to the city for its public buildings.

Street lights are practically furnished by the Rising Sun Light Company, a corporation operating under a charter granted by the State of Maine. This

company owns lamps and posts. In 1904 there were 9,337 Welsbach gas lamps in use, paid for at the rate of $30 per lamp per annum. In accordance with the contract of the city with the Rising Sun Company, the city derives benefit from any reduction in the cost of gas in Boston; so that the city is now, *i. e.*, since July 1, 1905, paying $29.40 per lamp per annum, and will pay $28.80 for the same after January 1, 1906. In 1904, 1,491 open-flame and 538 Welsbach naphtha lamps were in use for public street-lighting, at $22.81 and $29.20 per lamp per annum respectively, and the same rates for naphtha lamps obtain in 1905.

In 1904 there were 3,699 electric arc lights in use for public lighting against 3,731 now in use (1905). Then, as now, the price per lamp varied from 33 to 35 cents per night, or $120.45 to $127.75 per annum. Of incandescent lamps there were thirty-eight in 1904, at prices varying from $2.50 to $3.00 for some, and one cent per lamp per hour, less 25 per cent. for others.

CLEVELAND

By F. E. Stevens, Secretary Municipal Association of Cleveland.

The Gas Service.

Two companies furnish the gas supply of the city—the Cleveland Gas Light and Coke Company to that portion of the city east of the Cuyahoga River, and the People's Gas Light Company to the portion west of the river.

The original grant was made to the first of these two companies in 1849. Permission was given to lay pipes under supervision and certain restrictions. The company was required to furnish gas to the city for public lighting at a price not to exceed that paid in Buffalo or Cincinnati, and to citizens at a price not to exceed $3.00 per thousand cubic feet. The city was to furnish and own the lamps. The city might also extend pipes and connect with mains when the companies refused to do so. For this service the company was to reimburse the city before they could use these pipes to deliver gas to private consumers.

The charter of the second company was granted in 1867. It contained provisions similar to those already stated, except that it was required to furnish gas for public lighting at a price not to exceed $2.25. After twenty years the city was to have the right to purchase the plant at a fair price to be fixed by five disinterested persons.

In the franchises the right is reserved by the city council to regulate the price of gas for ten-year periods. The last ordinance for this purpose was passed in July, 1900. By the terms of this ordinance the maximum and minimum price to be charged for public and private consumption is fixed at 75 cents per thousand cubic feet. The companies are required to install and maintain meters without charge to the consumer, but a deposit of $5.00 is required for each meter installed, this deposit to be returned upon discon-

tinuance of the use of gas or removal of the meter. No free lights for public service are provided. The companies are required to pay into the city treasury 6½ per cent. of their gross receipts. For the year of 1904 the receipts from this source amounted to $86,623.98. This amount is additional to the receipts from taxation of the property of the company. The companies are subject to a general property tax the same as any other corporation or individual. Hitherto it has been very much under-assessed. The assessment, however, more than doubled in the last three years, while previously very trifling increases had been made from year to year.

Until recently the gas companies supplied and maintained the equipment of street lighting. A different policy now obtains. The city owns and maintains all of the equipment and lights the lamps. The gas for the lamps is, however, purchased of the companies. By means of frequent tests the value of the gas consumed by each lamp per year is for the present fixed at $5.43. Nine thousand three hundred and seventy-seven lamps of seventeen-candle power are thus provided. The city also maintains 1,500 gasoline lamps. These latter are being gradually displaced by the gas lamps.

As a means of determining the amount due the city from the receipts of the gas companies the companies are required to submit, semi-annually, sworn statements showing the quantity of gas manufactured and the receipts from its sale. The city is empowered to examine the books and accounts of the companies and this is done by the city auditor. The city has no right under the franchises of the companies to purchase their plants.

Some two years ago a franchise was granted to the East Ohio Gas Company to supply natural gas for fuel purposes. The old gas companies vigorously contested this grant, as a large portion of their business consisted of supplying gas for fuel. The natural gas company supplies gas for 31 cents per thousand feet. That the entry of this company into the field has had a very considerable effect upon the business of the artificial gas companies cannot be doubted.

The Cleveland Gas Light and Coke Company, capitalized at $4,000,000 has paid dividends of 8 per cent. until recently, when the dividend was reduced to 6 per cent. The People's Gas Light and Coke Company, capitalized at $1,000,000 maintains its regular 7 per cent. dividend payment, the natural gas company not having as yet encroached greatly upon west side territory.

The Electric Light Service.

The electric light service is supplied entirely by one company—the Cleveland Electric Illuminating Company. It has a perpetual franchise and the city has no right to purchase the plant. There are no restrictions upon charges and no contract right in the city to regulate service or charges. It supplies the city with 1,238 arc lights, 2,000-candle power, at a cost per annum of $73.56 each. This charge is a considerable reduction from the figures of former years.

The city uses no incandescent lights on its streets. The charges for private lighting are as follows: For an average use of forty hours per month of the

lamps connected at 12½ cents per unit; and for any current in excess of said average use of forty hours per month of the *lamps connected* at 5 cents per unit. (A unit is 1,000 Watt hours.)

In consideration of 5 cent rate, consumer agrees that his bill shall not be less in any month than $——, being a basis of $2.50 for each arc lamp and $1.00 for each ten sixteen-candle power lamp or proportion thereof installed. For power, 12½ cents for each 1,000 Watt hours, less 50 per cent.

The above are the rates charged and published, but wherever there is competition from private power companies in power blocks, etc., secret rates are made. Gas lamps are located at an average distance from each other of 150 feet and arc lights are placed from 300 to 400 feet apart. All streets are not, however, equally well lighted, the above apportionment of lights indicating the average provision for the streets.

BUFFALO

The Gas Service.

The gas lighting service of Buffalo is rendered by a private enterprise under the name of the Buffalo Gas Company. This company, which controls the entire lighting of the city (by gas) was organized in October, 1899, and is a consolidation of the Buffalo City Company and the Buffalo Gas Light Company. It also owns the entire capital stock of the Buffalo United Gas Light Company and about 90 per cent. of the People's Company. The company operates under a perpetual franchise. The requirements as to service are fixed by periodical contracts. The contract now in force covers a five-year period from March 1, 1902, to March 1, 1907. The company is bound to light, extinguish, clean and keep in repair the public street gas lamps, for which service it receives 17 cents per month per lamp. It is required to furnish gas of not less than eighteen-candle power to both the city and the private consumer. The company has a capital stock of $2,000,000, 6 per cent. non-cumulative preferred, and $7,000,000 common issued in exchange for the shares of the old companies. There is a bonded indebtedness of $5,900,000 first mortgage 5 per cent. gold, issued in 1897, due in 1947, secured by all the property of the company and by a pledge of the bonds and stocks of the People's Gas Light and Coke Company owned by the Buffalo Gas Company. A franchise tax has been levied annually since 1900, but no such tax has been paid for any year. The tax for the year 1904-05 is $39,187.49 plus $920.95 levied in name against a constituent company.

By the contract already mentioned the prices for lighting are to be as follows:

Public Lighting.—To light not less than 5,500 lamps:

March 1, 1902, to March 1, 1903, $0.79 per 1,000 cubic feet.
March 1, 1903, to March 1, 1904, .78 per 1,000 cubic feet.
March 1, 1904, to March 1, 1905, .77 per 1,000 cubic feet.

March 1, 1905, to March 1, 1906, .76 per 1,000 cubic feet.
March 1, 1906, to March 1, 1907, .75 per 1,000 cubic feet.

There are no free lights.

Private Consumers:

March 1, 1902, to March 1, 1903, $1.1999 per 1,000 cubic feet.
March 1, 1903, to March 1, 1904, 1.1998 per 1,000 cubic feet.
March 1, 1904, to March 1, 1905, 1.1997 per 1,000 cubic feet.
March 1, 1905, to March 1, 1906, 1.1996 per 1,000 cubic feet.
March 1, 1906, to March 1, 1907, 1.1995 per 1,000 cubic feet.

Twenty cents per 1,000 cubic feet to be deducted if paid on or before the tenth of the month. Notices are sent on the first of each month. The company had in June, 1905, 645 Welsbach lamps and 5,134 others, making a total of 5,779 lamps in operation.

The Electric Light Service.

The electric light service is also furnished by a private enterprise known as the Buffalo General Electrical Company. The relations of the electric company with the city are fixed by periodical contracts. The one now in force, dated March 1, 1902, is for five years. The company was incorporated in 1892. The capital stock authorized was $5,000,000 and $2,706,500 of stock was issued. The bonds issued were $2,375,000 first mortgage 5 per cent. due February 1, 1939. There are no payments to the city in addition to the general property taxes and the state franchise tax. This franchise tax for 1904-05 was $30,071.94. For public light the company is to provide enclosed series, arc, direct current system. The city is to use not less than 2,500 lights, each of which is to be 2,000 candle power. The maximum price to the city is $75.00 per lamp per annum during the period of the contract. There are no free lights. There is no requirement as to the maximum price of current for private consumers. The total number of lamps in streets and public places in the city is 2,792 arc lamps and 2,000 incandescent lights. There is no specific right to purchase the plant at the end of a given time; but action, if any, may be taken by the municipality under state law.

NEW ORLEANS

By James J. McLoughlin, New Orleans, La.

The city of New Orleans has no municipally owned light service. All streets and public places are illuminated with electric light. A contract with the gas company for lighting purposes is restricted to a few public buildings. The gas company is operating under a monopoly grant from the legislature of Louisiana, under an act passed in 1873 by which the company was given the exclusive privilege of making and vending gas in the city of New Orleans for a period of fifty years beginning with 1875. The sole and only consideration paid for this valuable franchise is an obligation to furnish gas to the

Charity Hospital free. The maximum price allowed to be charged by the company under its charter is $4.00 per thousand cubic feet.

The city gets no free service whatever, and she pays for the gas consumed by her, at the same rate that private consumers pay. The gas company pays taxes on its real estate and its franchise; the latter being on a very low valuation. Some years ago a corporation, called the New Orleans Railways Company, organized under the laws of the State of New Jersey, gained control of the street railroads, the gas company and the electric companies, and it still operates these public utilities.

The gas company having a monopoly grant from the legislature, it cannot be interfered with. New electric companies are organized every few years, but are always absorbed by the controlling company. The price of gas at present is $1.40 per thousand cubic feet, subject to cash investment of much less, as a great many shares of it, were issued without payment of bills. The present gas company derives the bulk of its income from fuel gas, as the electric company has practically driven gas out of the field for illuminating purposes, where the electric wires are strung. The capital of the gas company is $3,750,000—but represents an actual cash investment of much less, as a great many shares of it, were issued without any cash being paid, they being issued in payment of franchise grant. In order to understand this, it is necessary to relate the history of gas illumination in New Orleans.

In 1835, by an act of the legislature, the New Orleans Gas Light Company was granted the exclusive right for forty years, of selling gas in the city of New Orleans. In 1860 this monopoly was extended to expire in 1895. In 1873 the legislature of that year gave the Crescent City Gas Light Company, a new corporation, the monopoly right of making and selling gas, for fifty years from the time that the franchise of the old company expired.

A great deal of litigation folowed, which finally resulted in the merging of both the old and the new companies, with a nominally paid-up capital of $3,750,000, of which, new shares to the amount of $1,250,000, were given to the holders of the new franchise for the franchise, and the works, etc., were transferred by the old company to the consolidation. The city has no right to purchase the plant, and has no control whatever over the accounts of the company or over its rates. The shares of the gas company are leased by the New Orleans Railways Company which now operates the franchise.

The Electric Light Service.

The electric service used in New Orleans is furnished by private corporations. The franchise rights are not exclusive, as the control of the streets is vested in council. The right to use the streets for purposes of this kind, is usually granted without consideration, with the exception, that some years ago, when the underground conduits were ordered established in the business portion of the city, the company was obliged to reserve for the city enough space to place its fire alarm wires in the company's conduits.

The maximum rate is not fixed in the franchise, and the city has no control whatever over the operation or finances of the electric company. The electric companies now in operation, are all under one control and owned

by the New Orleans Railways Company, which has a contract for lighting the city of New Orleans with electricity, for the period ending September 30, 1905, and a second contract for a period of ten years thereafter.

Under the old contract, about to expire, the city pays $127 per annum for each arc light, for incandescent lamps it pays the same as private consumers. Under the new contract, which will begin October 1, 1905, the city will pay $75 per annum per arc light for overhead wires, and $90 per annum per arc light for underground wires. The underground system comprises a very small portion of New Orleans, and has 476 arc lights, while the overhead system has 1,251 arc lights.

The tariff for private consumers is twenty cents for Kilo-Watt hour for incandescent service, and ten cents for motors or power rates, which are regulated by meters. This tariff for private consumers, although printed in the company's contracts, is not strictly adhered to, as dozens of private consumers have made contracts with the company upon the best terms that are obtainable, which vary greatly in various cases.

A competitor in the electric business has appeared during the last year, and is now taking contracts for light to be furnished after next January. Whether or not this is a permanent institution, is yet to be seen. It may be absorbed by the present company, as has been the fate of all its predecessors.

The consolidation of these companies through the New Orleans Railways Company, has been financed as usual, by the issuance of bonds, and preferred and common stock, in the usual manner of paying the nominal price of about two or three times the cash value of the property.

MILWAUKEE

By John A. Butler, Milwaukee, Wis.

There is no municipal gas service in Milwaukee. By an act of the legislature in 1852 the Milwaukee Gas Light Company was given the exclusive right to use the city's streets for the purpose of piping and selling gas for illuminating purposes. The grant of this franchise appears to have been practically unconditional. There are no free lights, and no money payments to the city except taxes which are levied on the assessed valuation of the company's property which includes its franchises. The city has no control of the company other than the usual police powers as to streets and alleys. There is no reserved right to purchase.

The authorized issue of gas company bonds is $10,000,000. The amount sold is $7,300,000 and the amount of stock issued is $4,000,000. The following is the schedule of prices of gas used for illuminating purposes:

First 1,000 cubic feet, $1.20; discount .20, net $1.00 for prompt payment. Next 34,000 cubic feet, $1.10; discount .20, net .90 for prompt payment. Over 35,000 cubic feet, $1.00; discount .20, net .80 for prompt payment.

For Fuel Purposes.—First 10,000 cubic feet (per 1,000 cubic feet), $1.00; discount .20, net .80 for prompt payment. Next 10,000 cubic feet (per 1,000

cubic feet), .90; discount .20, net .70 for prompt payment. Over 20,000 cubic feet (per 1,000 cubic feet), .80; discount .20, net .60 for prompt payment.

The number of public lights is 2,596 and the annual charge per light $28.

The number of lights per mile of street varies and cannot be stated.

The streets are lighted by gas and electricity, and by oil in the outlying districts. The latter service is, however, limited.

The electric light is furnished by the Milwaukee Electric Railway and Light Company, which, as a consideration for a grant of valuable additional railway franchises, and the extension of others, sells twenty-five street car tickets for $1.00, and is required to furnish electricity to swing, elevate and operate all bridges crossed by its lines.

There are no established maximum prices for private lighting. There is a good deal of agitation at present as to uniform rates and a maximum price, and the fact that varying provisions for rates and a maximum price appear in the franchises of the Edison Company, the Badger Company and the Milwaukee Power and Light Company, all of which were absorbed by the Milwaukee Electric Railway and Light Company, may prove to be a means of securing uniform rates and a maximum price from the latter company for lighting.

The number of underground wire lights is 1,108. The annual price per light is $90. The number of overhead wire lights is 818. The annual price per light is $81. The number of miles of street occupied is 530.014. The electric lights are supposed to be 2,000-candle-power lights. This is very doubtful. In fact they probably do not exceed 1,200- or 1,500-candle-power. No free electric lights are furnished to the city.

All electric lighting franchises granted up to June 8, 1896, were merged in the Milwaukee Railway and Light Company, but said franchises do not prohibit any person or corporation from producing and selling electric light to private parties. Light is accordingly furnished to many consumers by private individuals and estates, which operate on licenses or permits granted by the common council, subject to the general police control of public thoroughfares.

The city has in the past fifteen years entered into five-year contracts with the Milwaukee Electric Railway and Light Company and the Gas Company to light the streets by electricity and gas. The last contract for electric street lighting will expire on December 20, 1905. The city has no control except as specified in these contracts.

The capitalization of the Milwaukee Electric Railway and Light Company is about $15,000,000. "All the real estate and personal property, owned and used in the operation of a street railway or electric lighting business, is exempt from general taxation, but in lieu of taxes the corporations operating and maintaining such street railways or electric light systems, pay a license fee of 4 per centum on gross cash receipts, if the same exceeds the sum of $500,000 per annum; and 2 per centum if such companies' gross cash receipts fall below $500,000 per annum." (Chapter 354, laws of 1899.) The Milwaukee Electric Railway and Light Company's gross receipts upon railway and lighting system for the year 1904 were $3,191,908.62, on which a tax of 4 per centum

was paid, which equals $127,676.34. The Milwaukee Light, Heat and Traction Company's gross cash receipts for the year 1904 were $456,279.01, on which a tax of 2 per centum was paid, which equals $9,125.94.

The law (Chapter 354 of the laws of 1899) provides that the taxes or license fees paid by street railway and electric light companies are to be proportioned among the cities, towns and villages through which said railway or light systems are operated, upon the mileage basis of track and wire; but, in making such division the city where the principal portion of such railway or lighting business is maintained, shall receive three portions of such fee per mile within its boundaries to one portion in towns and villages. Twelve per centum of the taxes or license fees thus received by the municipality are to be paid to the county treasurer, the same to be applied as state and county tax. Thus, for instance, the sum of $127,676.34, above mentioned, does not entirely find its way into the city treasury. There must be deducted the amount which goes to the towns and villages outside of the city through which said systems are operated. Finally, there must be deducted 12 per centum which goes into the county treasury, leaving the net amount which goes into the city treasury, $98,529.62. Of the $9,125.94 taxes paid by the Milwaukee Light, Heat and Traction Company under this provision of the law, only $136.34 finds its way into the city treasury.

Finally, of the public service corporations in this city there is only one—the Milwaukee Gas Light Company—which is now directly taxable by this department. Two years ago, its total assessment was $1,700,000. This was increased by $1,550,000, making a total assessment of $3,250,000, now yielding an annual tax revenue to the city of approximately $75,000. The balance of the public service corporations located and doing business here, as already shown, are all outside of the province of the local tax authorities.

DISTRICT OF COLUMBIA

The gas lighting service in the District of Columbia is rendered by two corporations, styled, "The Washington Gas Light Company" and "The Georgetown Gas Light Company." The former was incorporated by an act approved July 8, 1848.[1] The later incorporated July 20, 1854.[2]

The price paid for lighting the public streets with gas is controlled by the appropriation law of March 3, 1905, which provides that not more than twenty dollars per annum shall be paid for each gas lamp with a flat flame burner adjusted to consume five cubic feet of gas per hour, and not more than twenty-six dollars per annum for lamps equipped with an incandescent mantle of not less than sixty candle power. This amount includes the entire cost of maintenance. The act further provides that the illuminating power of

[1] 9 Stats. at Large, 722. This charter was amended, see 10th Stats. at Large, pp. 734, 788, 835.
[2] 10th Stats., 786.

gas shall be equal to twenty-two candles. The average number of street gas lights is about seventy-five per mile. The commissioners are authorized to erect and maintain additional lights, if in their judgment it may be necessary. The charges for gas to private consumers are regulated by an act of Congress, entitled, "An act relating to the sale of gas in the District of Columbia," approved June 6, 1896.[3]

The electric light service is rendered by a private corporation entitled, "The Potomac Electric Power Company." The price charged by it for public service is fixed by act of Congress and is shown in the appropriation law for the fiscal year 1906, which provides that not more than eighty-five dollars per annum shall be paid for any electric arc light operated wholly by means of underground wire. The amount expended per annum for this purpose, including extensions of the service, must not exceed $84,400. No part of this appropriation may be used for electric lighting by means of wires over the streets of the city of Washington. The average number of street electric arc lights is about thirty per mile. The street lighting by gas and electricity is generally satisfactory.

The method of assessing gas light and electric light companies for municipal taxes and the taxes derived therefrom are substantially as follows;

The Electric Lighting Companies.

The real estate and conduits, poles, lamps, etc., of such companies are taxed at the rate of 1½ per centum per annum on the assessed valuation thereof.

These companies are required to make affidavit through their proper officers to the board of personal tax appraisers on or before the first day of August of each year as to the amount of their gross earnings for the preceding year ending June 30th, and to pay thereon to the collector of taxes 4 per centum.

The payments for the fiscal year 1905 are as follows:

Real estate	$8,048.57
Personal	26,542.33

The Gas Light Companies.

The real estate and the mains, meters, pipes, etc., of such companies are taxed at the rate of 1½ per centum per annum upon the assessed valuation thereof.

These companies are required to make affidavit through their proper officers to the board of personal tax appraisers on or before the first day of August of each year as to the amount of their gross earnings for the preceding year ending June 30th, and to pay thereon to the collector of taxes 5 per centum.

They are also required to take up, lay, and replace all gas mains on any street or avenue to be paved at such time and place as the District authorities

[3] 29th Stats. 251.

shall direct. The price of gas for both public and private use is regulated by Congress.

The payments for the fiscal year 1905 are as follows:

Real estate	$24,469.98
Personal	80,977.63

NEWARK, N. J.

The Gas Service.

The gas service in the city of Newark is supplied by private enterprise. The first gas lighting company in the city was incorporated by an act of the legislature in 1845. This charter gave the gas company power to do all things necessary to light the city and the streets and alleys. In fact the gas company claims the right to open any street in the city without a permit. The charter was originally for twenty years, but later was extended to thirty years, and then finally made perpetual. The laws of the state require each company using public streets to pay into the state treasury 2 per cent. of the gross receipts. The state then apportions these gross receipts among the various taxing districts in proportion to the value of the public easement in each district. Ordinary real estate and personal taxes are levied upon the property of the company in the same manner as all other taxes are levied. The apportionment of the 2 per cent. state franchise tax for the city in the year 1904 amounted to $17,949.59. There is no law of the state or ordinance of the city which fixes the price to be paid by consumers and the public generally for the use of gas. The city, however, has a contract with the gas company whereby it pays $19.00 for each street lamp burning 4,000 hours per year with a four-foot burner. This contract runs for five years from March 1, 1903. The price paid by private parties generally for gas is $1.10 per thousand cubic feet with a discount of ten cents if the bill is paid within five days after date. The public buildings of the city are charged at the rate of $1.00 per thousand cubic feet with no discount or rebate. The gas company has never been required to give any free lights for the public service. The burners used on the lights are generally old fashioned—the gas lamp lights being used largely to supplement the electric light. There are few streets which are lighted solely by gas lamps; nearly all the street corners have electric lights. The total number of gas lamps in the city during 1904 was 2,136.

The Electric Light Service.

A number of electric light companies were organized in the city of Newark during the past twenty years. Their charters are of a general character and conform to the general laws of the state concerning corporations. The companies are required to obtain the consent of property owners before placing their poles in the front of such property. They are also required to

place their wires underground in subways constructed by themselves, but under supervision of the board of public works. The right to use the streets was unconditionally granted in perpetuity. No compensation for the use of the streets was paid to the city directly. However, a 2 per cent. franchise tax upon the gross receipts is paid to the state and is then apportioned by the state board of assessors in the same manner as the gas company's tax is apportioned. The amount received by the city of Newark from the electric companies of the 2 per cent. franchise tax during 1904 was $11,359.36. There is no limitation in the city ordinances regulating the maximum price of light or power furnished. The standard price for light to private consumers is thirteen cents per Kilo-Watt hour with a sliding scale or discount according to the current used. The city pays for public lighting $95.00 per year for 2,000-candle power arc lamps burning 4,000 hours. Incandescent lamps of 30-candle power are supplied for public lighting at $17.00 each per year burning 4,000 hours. There are no free lights furnished for the public service. The city also pays ten cents per Kilo-Watt hour for all lighting current used in the public buildings.

PROVIDENCE

By Sidney A. Sherman, Providence, R. I.

Gas and Electric Light System.

In Providence both the gas and electric light service are furnished by private enterprise. The Providence Gas Lighting Company has an exclusive franchise for twenty years from August 8, 1892. It must lay mains in new streets on ninety days' notice and keep those streets in repair for six months. It must maintain the quality of its gas at as high a standard as when the contract was made. There is no provision for testing the gas, and the city depends entirely upon the company for the keeping of the contract. After paying 8 per cent. dividends on capital, and making a "reasonable and prudent provision for carrying on its business," it must apply the balance of net earnings to a reduction of the price of gas.

There is no maximum price which may be charged, and there are no free lights for public service. Gas is almost out of use for street lighting, only $24,000 being expended for it as against $253,000 for electric lighting. The company pays taxes of about $30,000 a year, besides the special franchise tax of 3 per cent. on gross earnings, which tax amounted to $28,000 for the year ending June 30, 1904. The company has until recently been conservative in its financiering. The United Gas Improvement Company interests being in the field to secure control, the Providence Gas Company applied to the general assembly last winter for power to increase its capital from $3,000,000 to $6,000,000. It was given power to raise it to $5,000,000. Its stock sells in the market for $101, par $50.

A reduction in the price of gas from $1.30 to $1.20 was made in 1894, and from $1.20 to $1.10 in 1896. There has been no reduction since, despite the fact that the receipts increased 38 per cent. in the five years from 1898 to 1903, but, following on the recent inquiry of a city committee as to quality and pressure of gas, a reduction to $1.05 for prompt payment of bills was made in 1904. The city has no control over the accounts of the company, nor even over the quality of gas. There has come to light no attempt to evade the franchise provisions, and there is no temptation to evade them—they leave the company free. The city has no right of purchase. The present company is the result of some consolidation about fifteen years ago. It bought out its rivals.

Electric Lighting.—The "Act Concerning the Narragansett Electric Lighting Company," passed by the general assembly in January, 1892, gave that company an exclusive franchise of twenty years from July 1, 1892, in the city of Providence. Under authority of that act a contract was made by which the company was to furnish the city 2,000-candle-power lamps, with 10 amperes of current, under an E. M. F. of 45 volts each. The lights were to burn all night and every night. If the cost of light should be cheapened by any new invention the price was to be lowered accordingly. On the other hand, if the city ordered the wires placed underground, the interest on the cost was to be added to the price. There is no provision as to maximum charge, nor are there any free lights. The city pays for about 2,000 lights. The company pays taxes of about $20,000 a year, besides a special franchise tax of 5 per cent. on gross earnings, which tax amounted to $36,899 for the year ending June 30, 1904.

Providence is probably the best lighted city in the United States, having approximately 2,000 lights in 238 miles of street. According to the *Bulletin of the Department of Labor* for September, 1901, page 955, Providence pays $1.71 per capita for street lighting, a sum far in excess of that paid by any other city in the United States, with the single exception of Rochester, N. Y. The capital stock authorized is $7,000,000; outstanding, $3,000,000. The company has issued bonds to the amount of $1,000,000. The stock pays 8 per cent. dividends, and sells at $100, par $50. Up to 1897 the price of the public arc lights was $140.52; from 1897 to 1900 it was $127.75; from 1900 to 1903, $118.03; and from 1903 to 1906 it has been $109.50. These prices are exorbitant, and amount to a bonus to the company of $75,000 to $1,000,000 a year. The scheduled charge for private lighting (incandescent) is one cent per hour for a 16-candle-power lamp. There are discounts for large buyers, and complaints are made that the discount is variable and that each buyer must make his own bargain with the company. It is impossible to verify this. The city has no control over the accounts of the company.

In the legislative act it is provided that the city may establish a municipal plant, for public purposes only, on a majority vote of all those elected to each branch of the council, not less than four months before any annual election, and its ratification by a majority of the property voters (we do not have universal suffrage in Rhode Island cities) at that election. Failure bars another attempt for three years. Such a resolution was assured a majority

in the common council in 1896, but lacked one vote in the board of aldermen, and therefore failed to get to the voters. A similar resolution was introduced in the council in June of this year and referred to the committee on lighting, which failed to report, and the time has now passed when it could be voted on in November, even if the council should refer it to the electors.

ST. PAUL

The Gas Service.

Public and private lighting in this city is done by private agencies. All the gas and electric concerns are embodied in the existing grantee, the St. Paul Light Company. This company is required to give good and constant service to the city and all the inhabitants and to furnish, without discrimination, gas or electric current to all persons along its mains and lines. The company pays a tax on real estate and personal property and also 5 per cent. annually of the gross earnings. The maximum price for gas to January, 1905, is fixed at $1.15 per thousand cubic feet; thereafter, until January 1, 1907, to diminish at the rate of five cents per year, and thereafter during the continuance of the existing franchise not to exceed $1.00 per thousand cubic feet for private use. For public use to light the city streets, public grounds and buildings, the price shall never exceed $1.00 per thousand cubic feet of gas actually used. The price charged per lamp per hour for public lamps is $26.25. There are in all 2,920 lamps, none of which are free.

The Electric Light Service.

In the case of the electric light service the grantee is required to place electric wires on any street within six months after they are ordered to do so by the common council. The grantee is also required to furnish an ample supply for power purposes to persons desiring to use the same, within six months after being so ordered by the council, provided the petitioner agrees to pay for an amount of power equal to or not less than two horse-power per day for one year. The company pays real and personal property taxes, and 5 per cent. of the gross earnings to the city as in the case of the gas service. No maximum price for current is fixed. The city, however, pays from $90 to $100 per arc lamp per year. There are no lights supplied free of charge.

GRAND RAPIDS

By Delos F. Wilcox, Grand Rapids, Mich.

The Gas Service.

There is no public gas plant in this city. Gas is furnished by the Grand Rapids Gas Light Company under a franchise granted May 5, 1890, for a period of thirty years. There is no provision for public lighting and no

limitation as to the price to be charged for gas except that it may not exceed the price charged at the time the franchise was granted. As a matter of fact, however, the price has been voluntarily reduced so that gas is now furnished at $1.10 per thousand cubic feet with twenty cents discount, if bills are paid before the fifteenth of the following month. The same price is charged whether the gas is used for illuminating or for fuel purposes. The only payment made by the company to the city treasury is in the form of regular taxes. The company is taxed on a valuation of $1,885,850. Last year the company paid $28,522.39 in taxes. The city has no control over the accounts of the company and has no right reserved in the franchise to purchase the plant.

The present gas company has a monopoly of gas lighting and there has never been any competition. There is little complaint of evasion of franchise conditions because there are practically no conditions in the franchise ordinance except with reference to the opening of streets and the laying of pipes. However, there has been a great deal of complaint about poor quality of gas, together with varying pressure. It is understood that many of the gas mains are too small for the increasing service, so that extraordinary pressure is required in the downtown district in order to get any at all for the remote service. The city authorities are now considering the passage of an ordinance providing for the testing of gas and the regulation of pressure. Under the new city charter, which goes into effect September 1st, the city will have much greater authority in this matter than it now has.

The Electric Lighting.

Private Plant.—All private electric lighting is done by the Grand Rapids Edison Company, which is operating under a franchise granted September 6, 1893, for a period of thirty years. The Edison Company now owns three franchises which were originally granted to different parties. Consolidation was effected several years ago and now there is no competition in commercial lighting although the council has, within the past two years, granted two other electric lighting franchises for twenty-year periods. Neither of these has as yet been used and the indications are that one at least will be forfeited. The Edison Company franchises contain no requirement as to prices or character of service. The only limitations are with reference to the opening of streets, the stringing of wires and the laying of conduits. There is no provision for public lighting. The municipal lighting plant takes care of all street lighting and plans are now on foot to extend the system to enable the city to light its own public buildings. At present the public buildings are lighted by gas or electricity at the same rates as private establishments. There are no free lights provided for, and there is no payment into the public treasury except taxes upon an assessed valuation of $830,675 which amounts to approximately $14,000 a year. The company is capitalized at $1,641,250, of which $198,750 is preferred stock and $602,500 common stock, the bonds outstanding amounting to $850,000. For the year 1904, the gross earnings are given as $218,015.18 and the operating expenses as $123,271.05, leaving $94,-

744.13 as the net earnings for the year. Out of this $42,000 was charged to interest. This left $52,744.13 to be devoted to dividends and reserve. The prices are as follows:

Incandescent Lighting.—For first thirty hours' use of maximum connected load, 12 cents per thousand Watts; for second thirty hours' use, 8 cents per thousand Watts; for all further use, 6 cents per thousand Watts.

Arc Lighting.—For first thirty hours' use, connected load, 10 cents per thousand Watts; for second thirty hours' use, 8 cents per thousand Watts; for all further use, 6 cents per thousand Watts.

Power.—For first thirty hours' use of connected load, 4 cents per horse-power hour; for second thirty hours' use, 3 cents per horse-power hour; for all further use, 2½ cents per horse-power hour.

A discount of 10 per cent. is allowed from these prices, if bills are paid within ten days.

The city has no control whatever of the accounts of the company and has no right reserved in the franchise to purchase the plant. There is little or no complaint of evasion or franchise conditions, as there are none of importance to be evaded.

Public Plant.—A municipal electric lighting plant was established six years ago. The total original cost of the plant was $186,253.81, $125,000 of which was provided by the issue of bonds. The construction to date, including extensions, has cost something over $200,000. The lighting plant is under the control of the board of public works, appointed by the mayor. There are no civil service rules whatever in that department or any other department of the city government. Recently, however, the board of public works, which has control not only of the lighting plant but also of the water works, repair shops, street construction, bridges and several public buildings, has appointed a general manager to have control of these departments. Mr. Samuel A. Freshney, the gentleman appointed, will receive a salary of $4,000 a year. The municipal lighting plant does not enter into the commercial field at all. The funds for its expenses are provided from the annual budget. The total expenses for maintenance and operation are about $30,000 a year. The board of public works figures that the public lighting is furnished at an average cost for operation only of about $45 per lamp, the average number of lamps being something over 600. When the streets were lighted by contract, the cost per lamp was about $100 a year. It would be unfair, however, to claim the difference between these prices as net profit, for in the present cost of operation as figured by the city no allowance is made for depreciation, taxes, interest, etc. Nevertheless, the city is well satisfied with its electric lighting plant and now has plans under consideration for extending the service so as to provide for lighting of the city hall, public library, police headquarters and the engine houses from the city plant.

SEATTLE

By Professor J. Allen Smith, University of Washington, Seattle.

The gas supply of Seattle a few years ago was controlled by a corporation operating under a perpetual franchise. A new company entered the

field in 1901, securing a fifty-year franchise by offering cheaper gas and holding out the prospect of competiton in the business. As should have been expected, however, competition was short-lived, the old company soon being absorbed by the new.

Under the charter of the new company the maximum price allowed is $1.50 per thousand feet for light and $1.25 for fuel. The company, however, has voluntarily reduced the price to $1.00 for all purposes and is rapidly extending its mains into every part of the city. At the expiration of its franchise the city has the right to purchase its works at an appraised valuation.

Electric lighting is controlled mainly by two private companies—the Seattle Electric Company and the Seattle-Tacoma Power Company, the former having a plant of 20,000 horse-power at Electron and the latter one of 18,000 at Snoqualmie. The city also has a plant of 6,000 horse-power which could, by the expenditure of perhaps $1,500,000, be increased to 35,000 horse-power.

The fifty-year franchise under which the Seattle Electric Company supplies light and power to private consumers was granted in 1902. The plant which this company owns, though erected primarily to furnish the power to operate its street car system, supplies the greater part of the light and power consumed by private users. The Seattle-Tacoma Power Company is operating under a thirty-six-year franchise granted in 1903.

The municipal authorities exercise no control over the accounts of the lighting companies and, aside from ordinary taxes, no money payments are required. In the case of the electric light franchise owned by the Seattle Electric Company, however, the company is required to put its wires under ground in a certain designated part of the city which may be described as the downtown business district, and in this same district it is also required to construct conduits which the city may use free of charge for its municipal police and fire alarm wires and its wires for lighting public places and municipal buildings. The city also reserves the right to lay down in the trenches opened by the company such conduits as it may elect to build at its own expense. In the case of the Seattle-Tacoma Power Company the city may require its wires to be put under ground. The franchise of the latter company fixes a maximum of twelve cents per Kilo-Watt hour for light, and six cents for power. The franchise of the other company, however, contains no restriction on the price which may be charged.

The streets and public buildings belonging to the city are all lighted now by the recently constructed municipal plant. When the bonds were voted for the construction of this plant it was generally understood that it was to furnish light and power for all purposes. Every effort has been made, however, by the private corporations engaged in this line of business to prevent the city from supplying light and power to private consumers. But in spite of this opposition the sale of bonds was recently authorized by an overwhelming popular vote to erect poles and wires for the purpose of distributing light and power for private consumers. It is not yet conceded, however, by the opponents of municipal lighting that the city is to become an active competitor of the private lighting companies. It is now contended in the interest of the private corporations that the purpose of the distributing system which

the city is about to construct is not to supply light and power for commercial use, but to prevent the private companies from charging the consumer an excessive price. This view of the matter might temporarily influence our municipal authorities, but the voters of the city want cheap light and power and will have little patience with the cry of vested rights raised for the purpose of protecting the profits of the highly capitalized private corporations.

It is generally believed here that the price charged for electric light by the private companies is unreasonably high and that the system under which the companies give a rating to each consumer affords an opportunity for discrimination. The chief demand, however, is for cheaper light, and the people will not be satisfied until the municipal plant is used for the purpose of reducing the price of light and power to private consumers. The city has an abundance of cheap power in connection with its Cedar River water supply which could be used to furnish light and power for general consumption. In this respect, however, the city has no advantage over the private companies, but the sentiment here is strongly in favor of municipal ownership and the people believe that the price charged for light, whether furnished by a private corporation or by the city, ought not to exceed the price at which the latter could afford to supply it.

DULUTH

By W. G. Joerns, Esq., Duluth, Minn.

The Gas Service.

(*a*) Originally the gas service in Duluth (in conjunction with the water service) was performed by a private company.

This private company, under the name of the Duluth Gas and Water Company, in October, 1883, obtained from the then village of Duluth what on its face was an exclusive franchise to furnish the municipality and its inhabitants with water and gas. The franchise, by its terms, was to run for thirty years and, under stated conditions, was open to renewal for twenty years longer.

Aside from the stated charge of $28 per annum per lamp for a minimum number of street lamps, the company was authorized to charge the general consumer at the rate of $2.50 per thousand cubic feet when used for illuminating and $2.00 per thousand when used for fuel purposes, the respective consumption being registered in separate meters. The average standard of illuminating gas was fixed at "not less than twenty standard candles." Other franchises for water and light were later granted to private companies in outlying subdivisions that subsequently became part and parcel of the city of Duluth; but they were more or less related to the parent company and for the purposes of this communication the history of the parent company may in the main be taken as also the history of the subsidiary companies.

The private company continued in the exercise of its franchise rights until the year 1898, when, after a shameful record of venality, incompetency

and inadequate and discriminating service, its rights and possessions were transferred to the municipality. Since about August, 1898, the gas (and water) plant has been operated by the city.

At the time of this transfer the company had ceased to do any street lighting, but was furnishing gas for interior lighting and for domestic purposes to the amount of about 20,000,000 cubic feet per annum, through twenty-nine miles of mains and 1,111 meters, at the rate of $1.90 net per thousand for illuminating and $1.00 net per thousand for fuel purposes. Under municipal management the consumption was rapidly augmented to, in round numbers, 25,000,000 in 1899 32,000,000 in 1900, 39,000,000 in 1901, 49,000,000 in 1902, 72,000,000 in 1903 until in 1904 the consumption reached 85,862,800 feet. The 1904 product was delivered through forty-eight miles of mains and 3,300 meters at the net rate of ninety cents per thousand for all purposes from January to July and from July 1st on at the net rate of *ninety cents for illuminating and seventy-five cents for purposes of use other than light.*

The consumption has increased during the first half of the present year something over 22 per cent., and stands on the basis of an annual consumption of 105,000,000 feet. The total for the year, however, is expected to substantially exceed this amount. The price remains the same as in the latter half of 1904.

In making comparisons the accepted fact should be borne in mind that, under proper management and normal conditions of production and distribution, as the consumption increases the cost of production and distribution should relatively decrease, or nearly so, and that the cost to the consumer should be proportionately reduced. It should also be remembered that on account of topography, large amount and difficult nature of rock work, extent of territory and scattered consumption and perhaps for other reasons Duluth is a more costly territory to serve than the average. Indeed, a prominent New York technical journal stated about three years ago, upon due investigation and comparison, that, owing to these fundamental difficulties, the "cost of construction" in Duluth, in proportion to number served and quantity output, was *"unparalleled."* Nevertheless, the favorable basis of charge, as stated, has been arrived at under municipal management.

The present rate was reached by gradual reduction. In 1898, both with the company and the city, the rates averaged $1.52 2/8 per thousand. The plant was then far from self-sustaining. In 1899 the rates were reduced to net $1.30½ per thousand. Notwithstanding substantial improvements in management and economies in both production and distribution the operation still showed a deficit, the aggregate cost per thousand for the year being $1.53. By the very next year, however, the effects of the broader municipal policy and better management began to show themselves and, though the average earnings per thousand were still further reduced to $1.24¼, the cost was reduced to $1.26 1/8 and the deficit to less than $700 for the year. By 1902 the earnings (rates) had been reduced to $1.11 8/20 and the cost to $1.07½, the works thus earning for the year a net SURPLUS of a trifle over $1,800. In 1903 the earnings (rates) were still further reduced to $1.02 9/10 and the cost to $0.95 4/6 and the surplus for the year was over $5,000. In 1904 the net rates

were still further reduced to the average of $0.89^2/_6$, the department so far having followed the plan of absorbing anticipated profits, as near as may be, in reduction of rates, but the surplus for the year was still about $1,500. In the current year, the rate remaining as established in the latter half of 1904, the average rate for the year is estimated at about $0.87½ and the year's surplus at $25.00, or perhaps even in excess of that amount.[1]

The substantial saving to the consumers, thus demonstrated, has been still further supplemented by reductions in the price of service extensions, stoves, lamps, etc., which, under the municipal policy, are furnished by the water and light department of the city at a slight margin above cost, enough to protect the city against any possibility of loss, but still at a material reduction from the standard set by private enterprise.

The gas and water plants of the city came into its possession together and have been, more or less, the subject of joint operation. The two plants were purchased by the city for $1,250,000. This was practically $1,000,000 less than the price at which it was originally aimed and schemed to unload them upon the city, but was still in excess of the conservatively estimated actual value thereof by several hundred thousand dollars. It was a compromise figure in which the people of Duluth acquiesced in order to get rid of the private management which had become a virulent public ulcer. The city had already begun the building of an independent, so-called "supplemental," system for the purpose of securing and safe-guarding an "unfailing supply of pure and wholesome water" for which was expended upwards of $1,000,000 and the annual interest charge increased by some $50,000. There have also been expended by the city since the purchase of the plants in new construction and extensions (including work now in progress) between $500,000 and $600,000. For all such capital expenditures, except the sum of $91,000 contributed thereto out of the surplus earnings of the plants, the "water and light" bonds of the city have been issued to the now sum total of $2,746,000. Of this bonded indebtedness $483,000 was at the beginning of the present year charged to the gas plant. To this amount are to be added some $25,000 more that are provided for in above bond total and are now being expended in gas extensions. It is only proper to add that an additional $20,000 (over and above the $91,000 heretofore mentioned) of the surplus earnings of the water and light department have been appropriated and are now being expended in water and gas extensions.

During the six and a half years of municipal operation (to January 1st of the present year) the city has paid $331,500 as the aggregate of interest on the bonds covering the "supplemental" system for securing and safeguarding a pure water supply. This was a charge that the private company during its operation did not have to meet. Nevertheless, under municipal management, there has been accumulated (to January 1, 1905,) a *surplus* of $112,000, of which $91,000 have heretofore and $20,000 are being now expended in additions to the plants and are properly classed as "investments in construction" for which otherwise it would have been necessary to issue additional bonds of the city; and there has been saved to the consumers, besides, the sub-

[1] Above fractions of a cent are approximately only.

stantial aggregate of not less than $375,000, $25,000 of which came in reductions on service extensions, meters, lamps, etc., and the balance from reductions in the water and gas rates during the period named. Extensions, also, are now made on a guarantee, *from the immediate consumer,* of an annual income of twelve cents per lineal foot (being 8 per cent. on the average estimated cost), whereas in the case of the private company, by manipulotion of the authorities, a guarantee *by the city* had been brought about of an annual income to the company of fifty cents per lineal foot, to the illegitimate cost to the city of thousands of dollars. In addition a corrupting political influence has all but been removed, the patrons have enjoyed an impartial and absolutely first-class service in every respect and the benefits from the economies of increased production and improved processes will flow into their pockets instead of being diverted into those of a more or less exploiting syndicate for gain. The only offset to this wonderful credit is the amount of the taxes the private company would have paid to the city had the plants remained in private hands. The aggregate of this offset for the six and a half years in question has been computed at $105,000 (a figure that, I believe, is undisputed) and is barely a fifth of the actual cash savings, to say nothing of the assured pure water supply, better service and the other benefits mentioned.

In their operation of the water and gas plants the water and light board have followed the plan of charging to construction and hence to capital account:

1. The original cost to the city of the several plants.

2. All new work, material and appliances not heretofore part of the plants, the same being additions and not replacements.

3. All replacements of parts of the plants in worn out condition when taken over by the city, with pro-rata charge only for partial depreciation at that time.

All other replacements, in fact many that might properly have gone to construction, have been charged to *operation and maintenance,* the policy and practice of the board having at all times been a broad and liberal one in the direction of keeping the plants in a high state of efficiency out of the earnings thereof with as little encroachment as consistently possible on the capital account. This capital account, except as to the $91,000 of savings (water and gas) invested in construction prior to January 1, 1905, and the $20,000 now being expended in extensions, as stated, is represented by the "water and light" bonds issued by the city as heretofore set out.

Inasmuch as, under the policy of the board, the plants have been maintained in a state of full efficiency and, as to the part taken over from the private company, in fact improved since the city took charge thereof, no annual sum or percentage has, in the bookkeeping of the department, as yet been charged off for depreciation. Neither has any sinking fund provision been made to date and this for the reason that, except as the accumulated surplus has been devoted to construction, the policy heretofore has been to absorb, as much as possible, any anticipated surplus in the reduction of rates. Now that rates, in their reduction by practically one-half, have been brought down to a living basis for the consumer, it is among the mooted possibilities that a sinking fund will be established in the near future.

(*b*) The present price of gas, namely, ninety cents for illuminating purposes and seventy-five cents for other than light, was arrived at under municipal production and distribution. It is the full and fair product of municipal management, and, under well-known rules, meant the continued reduction in the cost of production and distribution as the consumption increased.

In August, 1904, however, the city was prevailed upon, still controlling absolutely the distribution, to enter into a ten-year contract to purchase its gas supply from a newly established local private coking plant which had the gas on hand as a by-product and which, in this way, the people of Duluth sought to aid and stimulate as a new, important and growing industry. The basis of charge, on a sliding scale, was just what the city had demonstrated it could produce the gas for with its own generator, with such future reductions as it was calculated the city could effectuate under stated increased stages of production. The water gas, therefore, furnished by the city was of practically twenty-two-candle power and of 650 heat units. The coal gas now supplied to the city, under the arrangement stated, is only from eighteen to nineteen-candle power but of 700 heat units. The new product is thus less in illuminating power but greater in fuel capacity.

There are those who earnestly regret even this departure from absolutely exclusive municipal production and control, even though apparently safeguarded by rigid contract provisions, and fear that it may pave the way for that undermining of the public enterprise by the private selfish interest which unfortunately has become more or less historic; but the assumed general economic benefits to the community from the special arrangement were pictured in such favorable light that active opposition was practically eliminated. The ultimate wisdom of the step remains, of course, a matter of future determination.

(*c*) *Management.*—This essential in Duluth is met by several important and more or less unique requirements and has been safe-guarded with much care in the "home rule" charter of the city.

The important features that have made for success in the municipal operation of the water and gas plants in Duluth may briefly be summarized as follows:

1. Absolute divorce from politics, in theory as well as practice.
2. Business management.
3. Charter safe-guards against mismanagement within and against encroachments and attacks for private gain from without, including the barter and sale or other disposition of the public plants.
4. Intelligent public spirit of the people of Duluth.

The management of all public utilities, owned and operated by the city, is by charter provision vested in the so-called board of water and light commissioners. This board is composed of five members who are appointed by the mayor of the city, *one in each year* (except, of course, in case of vacancy), hold office for *five years* and serve without pay. The personnel of the board has from the start been of the highest order. This board employs and fixes the compensation of a general manager or managers and such other officials and subordinates as may be necessary to carry out the purposes of the depart-

ment. It also has absolute and uncontrolled management of the public service utilities committed to its care, including the right of contract and of the purchase and sale of supplies, etc., except as its powers may be restricted by the following provisions:

a. Contracts involving an expenditure of more than $300, whether for material or construction (except in cases of emergency) must be in writing and in duplicate, one copy thereof being filed with the city comptroller who is also the comptroller of the board.

b. All funds on hand, in excess of $200, shall daily be deposited in the city treasury, the city treasurer also acting as the treasurer of the board.

c. Extensions when ordered by the board can only be made upon approval by resolution of the common council.

d. Water and light bonds can only be issued by the city when authorized by the common council and approved by popular vote.

e. The board must make monthly report of its receipts and expenditures and semi-annual general reports to the common council and its vouchers must be countersigned by the city comptroller.

f. The president of the board is by virtue of his office a member of the "city conference committee," which exercises a general supervision over the affairs and expenditures of the city and its several departments, and must report to such committee in writing, for its use and for the use of the common council of the city, at the first yearly meeting and at each monthly meeting thereafter:

First. The amount of contracts let and of purchases made for material and supplies.

Second. The amount of expenses incurred for labor.

Third. The amount of expenses incurred and contracts made for all other purposes and a synopsis of any contract calling for the payment of money (except bonds).

Fourth. The amount of moneys collected by the board from time to time.

Fifth. The number of employees at the date of the report, working on a fixed salary, in the service of the board and the monthly or annual salary of each.

g. The general civil service provisions of the city have a limited application to the employees of the department.

h. The general charter provisions governing misconduct and removal from office of public officials also apply to the members of the board and its subordinates.

The Electric Light Service.

1. The electric lighting in Duluth (excepting in the unimportant suburb of New Duluth, Fond du Lac, where it is done in a small way is at present furnished by a company called the Duluth General Electric Company. This company, by purchase, absorption and reorganization, is the successor of numerous prior companies that had obtained franchises in the past—in part from the city proper and in part from separate suburban political divisions that later became a part of the city. These franchises have

either expired by limitation or, by their express terms or inherent defects, are now revocable at the pleasure of the city.

The stipulations for rates also, where such are in terms other than that they should be *reasonable,* are now of no practical effect; for the charges of the company have been more or less determined by the competition of the *municipal gas plant* and, so far as public lighting is concerned, by contract provision which the exigency of threatened municipal invasion of the electric lighting field wrung from the private enterprise and the continued danger of municipal activity is likely to maintain.

Under the provisions of Duluth's "home-rule" charter, public service corporations exercising franchises in the city must file with the city comptroller annual sworn statements as to value of plant, indebtedness, capital stock, earnings, expenses, etc. From that of the Duluth General Electric Company filed to cover the year ending December 31, 1904, it appears that (in pursuance of receivership proceedings as to its immediate predecessor, foreclosure and reorganization) the company paid for its property in its own bonds and stock as follows:

Bonds	$1,175,000
Stock	117,000

and expended in construction since the time of such purchase the sum of $137,660.47, thus making the total alleged cost to the company on December 31, 1904, $1,429,660.47.

The bonds outstanding are given, as:		
First mortgage bonds	$596,000	
Income bonds	625,000	
Total bonds	$1,221,000	
The stock (as above)	117,000	
Total outstanding capitalization	$1,338,000	
The earnings for 1904 were given as follows:		
City of Duluth (public lighting)	$23,678.48	
General consumers	168,708.16	
Power	24,406.17	
Miscellaneous	6,799.14	
		$223,591.95
The expenses:		
Taxes paid	$5,646.06	
Interest paid	66,560.00	
Maintenance and operation	106,380.35	
Depreciation of plant at 3 per cent.	42,889.81	
Net income	2,115.73	
		$223,591.95

It has been publicly charged that the issue of "first mortgage bonds" aforesaid more than represents the actual present cash value of the plant. There is substantial reason to believe that this claim is well-founded. If so, the company is grossly over-capitalized and the charge, in its method of book-keeping as developed by its report, of 3 per cent. on $1,429,660.47, or $42,889.81, for depreciation of plant is vastly in excess of the proper figures. It likewise follows that, under such revised estimate, its earnings would be grossly excessive notwithstanding the acknowledged low rate at which, as we shall see, the public lighting is provided for by contract with the city.

This public lighting contract with the city was made on April 29, 1901, by the immediate predecessor of the present company, and covered a period of five years from August 1, 1901, with right of renewal for another five year period at option of the city.

Under this contract the company agreed to furnish *arc* lights of the so-called "series alternating system of enclosed lamps of practically 6½ amperes and 70 volts rating," all night service, at $55.00 per annum; also bunches of *incandescent* lights for street lighting (two lights of 16 c. p. each to the bunch) at $18.00 each per annum. It was stipulated that the city should use and pay for a minimum of 300 arc lamps (a number then already exceeded) and it was provided that arc lamps should not be over 1,000 feet apart and incandescent clusters 400 feet.

In addition the company was obliged to furnish *free of charge:*

1. One arc light for each public park;
2. Lights for City Hall;
3. Twenty-five incandescent lamps of 16 c. p. each in police headquarters.

All other incandescent lights used in the public buildings of the city were further to be furnished at the rate of 7 cents per Kilo-Watt hour or 40 cents per month for each 16 c. p. light. The city also reserved the right to use the poles, etc., of the company for fire alarm, telephone and other municipal service *free of charge.* Under this contract there were in use in the city on December 31, 1904 (last official report), 395 arc and 225 incandescent lights.

The contract in question was urged upon the city notwithstanding the company then held the city's three year contract (from August 1, 1900), *with two years yet to run,* at $70.00 per lamp per year and no obligation as to incandescent lights whatever. The 1900 contract had, on its part, been a modified renewal of an expired earlier contract providing for the payment of approximately $100 per arc lamp per annum.

The reason for both the reduction to $70 and the later one to $55 is to be found in the public agitation for a municipal electric lighting plant. Indeed, when the $55 contract was thrust upon the city the people had already regularly voted a bond issue for a public lighting plant. This was immediately prior to the adoption of the city's "home rule" charter and meant that, notwithstanding the specious legislative inhibition intended to prevent just this consummation of the popular desire, the way was open for the construction by the municipality of an electric lighting plant for *public* lighting, which, once constructed, could be added to indefinitely and ultimately made to include the *commercial* lighting field as well. The admittedly low charge for public light-

ing, under the contract referred to, was, however, diligently and effectively used as an argument why the city should not engage in the "electric lighting business" (notwithstanding the brilliant success of the municipal gas plant) and served as an excuse to hypnotized and misguided public servants to disregard the mandate of the people until the bonds they had voted had, through lapse of time, become useless for their intended purpose.

The cost, to the consumer, of private or so-called "commercial" lighting is more difficult of determination. It is not the result of contract or of franchise provision but of a practical condition brought about by the competition, as far as it can apply, of the municipal gas plant in the lighting field. That the charges are discriminatory as between one customer and another is not fairly open to question. This discrimination is exercised in behalf of favorites, public officials and others where, in one way or another, there is an expectation of a *quid pro quo;* but it has been as one of the features of the war on the city gas plant that the most substantial concessions have been made or held out to the captured or coveted consumers of light. In a field in its nature open to more or less uncertainty at best, it is thus doubly difficult to arrive at an accurate estimate of the basis of charge for private (commercial) lighting. Some six or eight months ago the question of relative charge was reported upon by a committee of a public organization in the city, confessedly upon data furnished exclusively by the special interest in question, to the effect that the maximum rate for private lighting in Duluth was 13.5 cents (15 cents less 10 per cent. for cash discount) per Kilo-Watt hour as against an average maximum of 14.48 cents in cities of the United States of 40,000 population and over—according to the "confidential report of the National Electric Light Association for 1903."

The occasion for the report was an attempt on the part of the electric lighting company to commit the city to a premature renewal of the public lighting contract for another term of years, the present contract, at that time, having still almost two years to run; while the animus for the move was clearly to be found in a renewed agitation for a municipal electric lighting plant and the expressed determination to apply to the state legislature, then shortly to convene, for such legislative enactment as would pave the way for action by the municipality if later a plebiscite in Duluth should so determine.

The contract in question was not renewed at that time nor has the question as yet been again revived. The enabling legislation that the municipality sought through its governing body, for which there was a strong popular local demand and which was considered a vital prerequisite to either the purchase or construction of an electric lighting plant by the municipality, also failed of enactment. Notwithstanding at least the nominal support of an apparently unanimous local legislative delegation, these mysterious influences carried the day and the popular will for the time being was defeated. As a palliative the private company, through a member of the local legislative delegation who acted as its spokesman, offered to renew its public lighting contract with the city for another five or ten year period "at the same rate or less than is paid at present" and, "not later than the expiration of the present

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CONSTITUTIONAL LIMITATIONS RELATING TO CITIES AND THEIR AFFAIRS.

R. W. Skinner, Jr., Harvard College.

A study of the forty-five State Constitutions from the standpoint of restrictions placed by them upon State and Municipal authorities in relation to city affairs, reveals very plainly the fact that during the past decade there has been a strong tendency to increase the number of such restrictions The early State Constitutions contained very few provisions relating to municipal affairs; the State authorities were left, for the most part, quite free in their organization of local government. By the middle of the nineteenth century, however, one may mark a growing disposition to take advantage of constitutional revisions in order to curb this freedom. The movement in this direction has evidently strengthened apace, and of the nine States, Alabama, Delaware, Louisiana, New Hampshire, New York, Minnesota, South Carolina, Utah and Virginia, which have substantially revised their old Constitutions, or adopted new ones, during the last decade, all but one have incorporated in the new documents numerous important limitations upon the power of the State authorities in relation to city charters and upon the powers of municipal authorities in relation to municipal affairs.

The appended table, which is intended to indicate by specific article and section, every restriction in every State Constitution relating to cities or their affairs will furnish food for study. Some of the important features which it discloses may be summarized as follows:

1. There is an utter lack of uniformity among the various State Constitutions as to the limitations placed upon State and municipal authorities in their respective dealings with city problems.

2. The New England States show some approximation to uniformity in their comparative paucity of such limitations. One of these States,—Vermont,—has absolutely no such limitations in its Constitution whatever, while the whole six New England States put together have fewer limitations than some of the Western or Southern States.

3. As regards the other sections of the Union no marked tendency to uniformity is displayed among States geographically allied. Illinois, for example, has a large number of constitutional restrictions in its present Constitution, while Indiana, a neighboring State, has very few. South Carolina, again, has many, while Tennessee has only three in all.

4. In general, constitutional restrictions have increased decade by decade and, for the most part, are now most numerous in those States whose Constitutions have been revised at the latest date. To this there is, however, one striking exception in the case of New Hampshire which revised its Constitution in 1903, yet inserted no larger number of restrictions than did Connecticut in its Constitution of nearly ninety years ago.

5. The importance of the problem of city government in the United States is reflected unmistakably in the growing attention which municipal matters demand from constitutional conventions.

PROVISIONS IN THE SEVERAL STATE CONSTITUTIONS RELATING TO CITIES OR THEIR AFFAIRS

	Present Constitution Adopted In	How Chartered A–Special Act. B–No Special Act. C–General Laws. D–Consent of the Electors Is Necessary for Incorporation. E–Cities May Frame their Own Charters.	Provisions Regarding Debts.	Contraction Of Debt Must Be Authorized by the Electors.	Provisions Regarding Lending of Credit, Etc.	Regulation of the Taxing Power of Cities. A–As to Betterment Taxes.	Provisions Applying to City Officials. Etc.	Limitation of the Power of the State Over Cities. A–As to Franchises. B–As to Local Taxes. C–As to Assumption of City Debt.	Provisions regarding Special Acts.	A–Legislature shall Provide for the Organization of City Government. B–The Organization of City Government.	Regulation of City's Right. A–To Grant Franchises. B–To Make By-Laws.	Provisions Regarding the Municipal Judiciary.	Provisions Regarding changing a County Seat.	Provisions Relating to Special Cities.	Miscellaneous Provisions
Alabama	1901	IV 104(B) XII 229(C)	IV 104 XII 222 XII 225	XII 222	IV 94	XI 216 XII 223(A)		XII 220(A)			XII 228(A)	VI 168	IV 104	XI 216 XII 225	XII 227
Arkansas	1874	XII 2(B) XII 3(C)	XVI 1		XII 5 XVI 1	XII 4		XII 12(C)	V 25	XII 3(A)	XII 4(B)		XIII 3		VII 52 IX 3+5 XVI 10+13 XIX 1
California	1879	XI 6(B C) XI 8(E)	XI 18	XI 18	IV 31		IV 21+32 IV 25 XI 9	XI 12(B)	IV 25		XI 9 B XI 19	VI 14	IV 25 XI 2		XI 7+13+14
Colorado	1876	XIV 13(C) XV 2(A)	XI 8	XI 8	XI 1+2	VIII 8	XII 3 XIV 12	XV 11(A)	XV 2 V 25				V 25 XIV 2		V 35
Connecticut	1818	X 3			XXV (1877)		XXIV (1877)								X 2 Am. XV+XVIII
Delaware	1897	IX A			VIII 8			VIII 4(C)							V 9 XII
Florida	1885	VIII 8 Am. 1900(B)			IX 10	IX 5	III 20			III 24(A)		III 20	VIII 4		
Georgia	1877		VII 7 VII 10	VII 7	VII 6			VII 8 (C)							
Idaho	1889	XII 1(C) XI 2 III 19(B)	VIII 3 XII 4		VIII 4 XII 4		III 19	XI 11(A) XII 3(C)			XII 2(B)		III 19 XVIII 2		XIII 5
Illinois	1870	IV 22(B) XI 1(B C)	IX 12			IX 9(A) IX 10	IX 11	IV 20(C) IX 10(B) XI 4(A)	IV 22				IV 22 X 4	Am. 1891	
Indiana	1851	XI 1. (B C)	XIII 1					X 6(C)							
Iowa	1857	III 30(B) VIII 1(C)	XI 3		VIII 4				III 30				III 30		
Kansas	1859	XII 1(B C) XII 5(C)								XII 5(A)			IX 1		
Kentucky	1891	Sec. 59(B) Sec. 150(C)	Sec. 158 Sec. 159	Sec. 157	Sec. 179	Sec. 157 Sec. 181 Am. 1903	Sec. 161 Sec. 167	Sec. 163(A) Sec. 176(C) Sec. 181(B)	Sec. 59 Sec. 156	Sec. 160(B)	Sec. 164(A)		Sec. 59 Sec. 64		
Louisiana	1898	Art. 48(B)	Art. 281 Art. 270	Art. 281	Art. 58	Art. 224 Art. 229 Art. 232 Art. 233 Art. 243 Art. 270	Art. 210	Art. 48(A)	Art. 49				Art. 278	Art. 130–158 Art. 309–320	Art. 199 Art. 209 Art. 212 Art. 215 Art. 276
Maine	1820	IV Part 3 Sec. 14(A)	XXII				IV Part 1 Sec. 5		V Part 3 Sec. 13			VI 8			
Maryland	1867	III 48(A)				III 58			II 33					XI IV 27	
Massachusetts	1820	Am. II (D)									Am. II (B)				
Michigan	1850	XV I (A)								XV 13(A)		XV 14	X 8		X 7
Minnesota	1857	IV 33(B) IV 36(C) 28,8 X 2 A			IX 15(1870	IX 1(A)	IV 33		V 33				IV 33		XI 2
Mississippi	1890	IV 88(C) VII 175(C)			VII 183				V 87	IV 80(A)			XIV 259		XII 254
Missouri	1875	IV 53(B) IX 7(C) IX 16(B) XII 2(C)	X 12	X 12	IV 47 IX 6	X 1+11	IV 53 IX 13+14	X 10(B)	XII 2	IX 17(B)			IV 53 IX 2	IX 20–25 Am. 1900 VI 12+13	IX 15
Montana	1889	XV 2(A)	XIII 6	XIII 6	XIII 1	XII 5	V 36 XVI 6	XII 4(B) XIII 4(C)				VIII 24	XVI 2		
Nebraska	1875	III 15(B) XIII 1(B C)	XIV 2	XIV 2	XII 1	IX 6(A)	III 15+16	XIII 2 (A)	III 15				III 15		III 15
Nevada	1864	VIII 1(A)			VIII 10			IX 4(C)	IV 21	VIII 8(A)		VI 9			
New Hampshire	1903				Part II V										Part I VI Part II IX+X
New Jersey	1875	IV 7(B C)			I 19		IV 7		IV 7			IV 7			
New York	1894	III 18(B) VIII 1 (A)	VIII 10		VIII 10		V 9 XII 3	III 18(A)	III 18 XII 2	XII 1(A)		VI 5+17	III 18		
North Carolina	1875	VIII 1(A)	VII 7	VII 7	VII 7	VII 7				VIII 4(A)					
North Dakota	1889	II 60(B) VI 130(C)	XII 183 XII 184		XII 185		II 69		II 70	VI 130(A)			II 69 X 169		
Ohio	1851	XIII 1(B) XIII 2(C)			VIII 6			VIII 5(C)		XIII 6(A)			II 30		
Oregon	1857	XI 2(A)			XI 9			XI 8(C)	I 21	XI 5(A)			I 21		
Pennsylvania	1873	III 7(B) XV 1(C D)	IX 8+10 XV 3	IX 8	IX 7		III 7	IX 9(C) XVII 9(A)					III 7		III 7
Rhode Island	1842	Am. IX (C) (1892)										X 7			
South Carolina	1895	III 34(B) VIII 1(C) VIII 2(D)	VIII 7	II 13		VIII 6 VIII 8		VIII 4(A)		VIII 3(A)			VII 8	Am. 1901	II 12 VII 11 VIII 5 VIII 10
South Dakota	1889	III 23(B) X 1(C)	XIII 4+5 Am. 1896		XIII 1	XI 10(A)	III 26	X 3(A)	III 23	X 1 A		V 23	III 23		Am. 1898
Tennessee	1870				II (29)	II (29)						XI 9			
Texas	1876	III 56(B) XI 4(C) XI 5(A)	XI 5		III 52 XI 3	XI 4 XI 5	III 56		III 56				III 56 IX 2	XI 7	XI 8
Utah	1895	VI 20(B) XI 5(B C)	XIV 4 XIV 5	XIV 3	VI 31		VI 20 XII 17 XXI	XII 8(A) XIII 5(B) XIV 6(C)	VI 26	XI 5			VI 20 XI 2		XI 6 XVI 6
Vermont	1796														
Virginia	1902	VIII 117(B C)	VIII 127		XIII 185	VIII 128 IX 130 XIII 173+170(A)	IV 63 VIII 120+122	VIII 124(A) XIII 185(C)	IV 51+63+64 VIII 126	VIII 120(B) VIII 121(A)	IV 65(B) VIII 125(A)	VI 98+99 VIII 118+119	IV 63		IV 50+51 VIII 123
Washington	1889	II 28(B) XI 10(B C E)	VIII 6	VIII 6	VIII 7	XI 12 VII 9(A)	XI 8	XI 8(B)			XI 11(B)	IV 10	II 28 XI 2		
West Virginia	1872	VI 39(B E) XI 1(B C)	X 8	X 8		X 9	IV 8 VI 27	X 6(C) XI 5(A)	VI 39			VIII 19	VI 39		IV 4
Wisconsin	1848	(XI 1 A) Am. IV 31(B) Am. IV 32(C)	Am. XI 3				XIII 9		Am. IV 32	XI 3(A)		VII 2	Am. IV 31 XIII 8		
Wyoming	1889	III 27(B) XIII 1(C) XIII 2(D) X 1(C)	XVI 4+5			XV 6	III 37 VI 15 XIV 1	XIII 4(A)	III 27	XIII 3(A)		V 1	III 27 XII 3		XIX 1

Except where otherwise specified, Roman numerals stand for articles, Arabic numerals for sections.

Letters refer to classification at the head of the column in which they are found.

lighting contract with the city, namely, August, 1906, "to reduce its rates for private lighting 20 per cent. below the present rate."

2. For the purpose of "harnessing" the water power of the St. Louis River which empties at Duluth, and utilizing this power for electrical and other purposes on a large scale preparatory work was undertaken some years ago and more recently a powerful company was organized and financed. This company is more or less in the hands and under the direction of local capital and prominent citizens of Duluth are among its directing forces. Incidental to the furnishing of power this company sought and succeeded in having included in its general franchise a franchise also for electric lighting in the city of Duluth. This franchise to the Great Northern Power Company was granted on February 9, 1903, and the company has been granted to September, 1907, to get its general power plant in operation. This franchise, by its terms, is to run twenty-five years and the Power Company is to pay annually to the city one-tenth of 1 per cent. of its gross earnings.

That part of the franchise touching upon electric lighting provides that the rate charged shall at all times be "reasonable" and shall not exceed the maximum of twelve cents per Kilo-Watt hour meter measure. There are also provisions protecting the city, as a consumer of electric power, against discrimination in favor of private companies furnishing light for general use and of any consumer of like magnitude and under similar conditions. It is also provided that the city shall be furnished up to 1,000 horse-power for electric lights for streets, parks, public grounds and buildings, and Aerial Bridge on equally favorable terms.

It is also stipulated that if the Power Company fails to exercise its rights under the lighting part of its franchise within five years from the time of the commencement of its operations that part of its franchise may be revoked at the pleasure of the city. If, however, it does erect and place in operation such electric lighting plant, the city has the right, after five years. to purchase the same upon a valuation based upon the actual cost of duplication at time of such estimate plus 10 per cent., provision being made to arrive at such valuation by arbitration. It is specially provided that in such estimate nothing shall be added on account of franchise. The city may also purchase regardless of time limit whenever it is ready to agree to contract with the Power Company for a period of at least five years for power for such electric lighting, and if the city enters into such contract relation with the Power Company before the company shall have erected its lighting plant the city may revoke the Power Company's franchise in that regard.

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BOOK DEPARTMENT

NOTES.

Archiv für Sozialwissenschaft und Sozialpolitik. Published by J. C. B. Lohr, Tübingen.

American students will enjoy reading in Vol. XXI, No. 3, the continuation of Professor Werner Sombart's "studien zur Enterwickelungsgeschichte des nordamerikanischen Proletariats," sections III, "Die Lehenshaltung des Arbeiters," and IV, "Die soziale stellung."

Atkinson, F. W. *The Philippine Islands.* Pp. v, 426. Price, $3.00. Boston: Ginn & Co., 1905.

See "Book Reviews."

Blackmar, F. W. *The Elements of Sociology.* Pp. xii, 454. Price, $1.25. New York: The Macmillan Company, 1905.

See "Book Reviews."

Bourne, H. E. *A History of Mediæval and Modern Europe.* Pp. xxii, 502. New York: Longmans, Green & Co., 1905.

A conveniently arranged and well illustrated text-book for school. Emphasis is laid upon those facts which help to explain present conditions. The author is a professor in the college for women, Western Reserve University.

Carrera y Justiz, F. *Introduccion a la Historia de las Instituciones Locales de Cuba.* Two volumes. Pp. xi, 300; 510. Habana: Lib. E. Imp. "La Moderna Poesia," 1905.

See "Book Reviews."

Chapin, Henry D. *Vital Questions.* Pp. ix, 189. Price, $1.00. New York: Thomas Y. Crowell & Co., 1905.

The author, a well-known New York physician, discusses in a thoughtful and suggestive manner such social problems as the survival of the unfit, poverty, the child, education, health, happiness, closing with a few words upon death. The style is simple, and free from technicalities. Emphasis is laid upon the necessity of considering heredity and physical conditions in all plans of social betterment. Too much of existing charity is but ameliorative. The volume is a good one to put in the hands of one whose interest in matters social needs quickening.

Conant, Charles A. *The Principles of Money and Banking.* Two Vols. Pp. xvi, 437; viii, 488. New York: Harper & Bros., 1905.

Reserved for later notice.

Dorsey, George A. *Traditions of the Arikara.* Pp. 202. Price, $1.00. Publications Carnegie Institution of Washington, No. 17, 1905, Washington.

Traditions of the Caddo. Pp. 136. Price, $1.00. Publications Carnegie Institution of Washington, No. 41, 1905, Washington.

The Carnegie Institution, of Washington, has again given evidence of the valuable work it is doing to record the life and belief of the Indians in these two volumes collected by Mr. George A. Dorsey, the curator of anthropology of the Field Columbian Museum of Chicago. One cannot suppress a regret that more such work was not done in the years before white contact had affected—not to say destroyed—native culture. Far better now than never, however.

The Caddo and the Arikara both belong to the Caddoan stock, yet their folk lore is divergent. The tales are told in simple effective language with abstracts of each at end of the volumes. Many of the traditions are very attractive, all are interesting and suggestive. As folk lore alone they are worth preserving, but they also cast many a rich light upon primitive religion. They will be enjoyed by all and will be of value to all interested either in the Indians or in primitive society.

Goodnow, F. J. *The Principles of the Administrative Law of the United States.* Pp. xxvii, 480. New York: G. P. Putnam's Sons, 1905.

Reserved for later notice.

Greene, E. B. *Provincial America.* (American Nation Series. Edited by A. B. Hart. Vol. VI.) Pp. xxii, 356. Price, $2.00. New York: Harper & Bros., 1905.

See "Book Reviews."

Gulick, John T. *Evolution, Racial and Habitudinal.* Pp. vii, 269. Price, $1.00. Washington: The Carnegie Institution, 1905.

"The purpose of this volume is to investigate the cause and effects of what I have called 'segregrative breeding.'" "Segregation ranks as one of the fundamental principles controlling the relations of organic beings to each other." The theory of natural selection is not sufficient. Isolation has been indispensable. Environment does not control the organism, for variation depends chiefly on the organism. Even with "man, segregation was the leading factor through countless generations." Not merely does an animal from innate sources get adaptation to present environment but: "In the degrees of attainment reached in co-operative action (with the division of labor and community of interest) and in anticipatory and discriminative action (securing adaptation to future conditions), we find a definite test of the stages of evolution reached—a test that is applicable to the lowest as well as to the highest living creatures."

The only original evidence is presented in the author's observations upon the snails of the Hawaiian Islands. Further than this the volume consists of digests of the work of the biologists, and attempts everywhere to show and emphasize the fact of isolation. The style is heavy and involved, the terminology needlessly conspicuous and complex. The author is uncertain whether acquired characteristics are inherited or not. Only the biologist will read the book with pleasure. It is doubtful whether it makes any real contribution to our knowledge of the subject. There are several excellent plates of Hawaiian snail shells.

Guyot, Yves. *La Comédie Protectionniste.* Pp. xii, 466. Price, 3.50 fr. Paris: Bibliothèque-Charpentier, 1905.

Haggard H. Rider. *The Poor and the Land.* Pp. xli, 147. Price, 75 cents. New York: Longmans, Green & Co., 1905.

Blue books are not always widely read nor interesting to read. This volume, a reprint of a blue book, is a report upon the Salvation Army Colonies in this country and England. Mr. Haggard was appointed a commissioner to examine these and suggest some feasible means of getting many of the city poor into the country. He is a strong believer in this policy and has great faith in its practicability and effectiveness. On the whole, he heartily approves the colonies at Fort Amity and Fort Romie, though he points out certain mistakes. He gives an account of these and likewise tells how he interested the Canadian government to the extent of setting aside a very large tract of land for such purposes. The three requisites for success are sufficient capital at low interest; careful selection of the settlers and of the land; skilled and sympathetic management of both after settlement. The policy could well be adopted in England itself, the author thinks. While of greater significance to English readers because the problem there is more acute, the report deserves a wide reading here, and careful consideration. It contains several illustrations of the colonies visited.

Haines, H. S. *Restrictive Railway Legislation.* Pp. x, 355. Price, $1.25. New York: The Macmillan Company, 1905.

Reserved for later notice.

Hardy, E. J. *John Chinaman at Home.* Pp. 335. Price, $2.50. New York: Charles Scribner's Sons, 1905.

The author, for some years chaplain of H. B. M. forces, writes in a very bright and breezy way of his observations in China. The account is rambling, jumping from city to city with no special attempt at system. The author does not hesitate to quote freely from Smith and other writers. Nevertheless, we are told in interesting fashion a good bit about Chinese village life and customs, about houses and clothes, marriage and death, spirits and religion. One chapter is devoted to missionaries, for whom the author speaks a good word. The volume will be enjoyed by all who do not care for a more serious study. There are a number of good illustrations. The book would present a more dignified appearance had the publishers omitted from the cover the statement that the author is "the author of 'How to Be Happy Though Married.'"

Heilprin, Angelo and Louis, Editors. *Lippincott's New Gazetteer.* Pp. 2053. Price, sheep, $10.50; half Russia, $12.50. Philadelphia and London: J. B. Lippincott Company, 1906.

See "Book Reviews."

Herzfeld, Elsa G. *Family Monographs.* Pp. 150. Price, $1.25; paper, 75 cents. New York: for sale by Brentano and by "Charities," 105 East Twenty-second street, New York, 1905.

An exceedingly interesting history of twenty-four families living in the Middle West Side of New York City. The families are of various nationalities. Much information is given relative to economic and social life, standard of living, tables of expenditures, domestic habits. The monograph is valuable

and will be very serviceable to students of city life. Miss Herzfeld has not given a snap judgment upon families which she has just "investigated," but having known them intimately for some time, her words have great weight. Mrs. Elsa Cleaver Parsons contributes an introductory chapter.

Howard, G. E. *Preliminaries of the Revolution.* (American Nation Series, edited by A. B. Hart, Vol VIII.) Pp. xviii, 359. Price, $2.00. New York: Harper & Bros., 1905.

Reserved for later notice.

Howe, F. C. *The City: the Hope of Democracy.* Pp. xiii, 319. Price, $1.50. New York: Charles Scribner's Sons, 1905.

Dr. Howe announces his new book as "a reversal of method," an attempt at the economic interpretation of the city. While this would lead to the expectation of a dispassionate study, the volume resolves itself into an arraignment of the evils of privilege, a strong argument for municipal ownership, a return to the democracy, and finally into a dream of the ideal city which would follow the author's methods of reform.

The author goes over the familiar advantages and disadvantages of city life, and finds the source of practically all the evils in the control of valuable privileges and immunities by business interests through machine politics which has been extended into state and national life. Dr. Howe sees municipal ownership as the only path by which to lead the business man to the same standard of ethics held by the professional man, and convert his talents to the good of the city instead of to its detriment. The growing solidarity of the city entitles it to self-government, a more responsible executive, and a council elected at large.

Dr. Howe proposes to solve the problem of the slums by cheapened transportation and new building laws, to reform the penology which punishes and does not reform. The resulting growth of civic pride and consciousness will place democracy outside of a class struggle; will purify politics—which must always be corrupt while government offers prizes to those who conspire against it. With home rule secured, the city free to determine its revenues and activities, "the new civilization, which is the hope as well as the problem of democracy, will be open to realization."

Hunt, William, and Poole, R. L. *Political History of England.* Twelve Vols. Vol III. Pp. xviii, 495. Price, $2.60. New York: Longmans, Green & Co., 1905.

Reserved for later notice.

Jahrbuch für Gesetzebung Verwaltung und Volkswirtschaft. Jahrgang xxix, Viertes Heft. Leipzig; Gustav Schmoller, 1905.

Among the articles of interest to American readers in this number are the following: "Skizze der Entwickelung der Arbeiterorganisationen in dem Vereinigten Staaten von Amerika," L. von Wiese; "Das Währungswesen in China, auf den Philippinen, in Panama und anderen Silberwährungsländern," Cl. Heisz.

Kelley, Mrs. Florence. *Some Ethical Gains Through Legislation.* Pp. x, 341. Price, $1.25. New York: The Macmillan Company, 1905.

See "Book Reviews."

Kirkup, Thomas. *Progress and the Fiscal Problem.* Pp. vi, 198. Price, $1.40. New York: The Macmillan Company; London: Adam and Charles Black, 1905.

This little volume gives us an admirable resumé of the main points or considerations in issue in the fiscal-industrial controversy that has been acute in England during the past three years. Recent industrial developments in England, America and Germany that have brought these great nations into such sharp competition for the world's markets; the entrance into British markets of American and German producers with such adverse results to English manufacturers; the results of free trade and the effects of "dumping"; and the feasibility of tariff reform—these are succinctly discussed. The author is notably free from cant or rant; he is concise and lucid in his style; he exhibits a firm grasp of the elemental facts and forces that have governed the radical changes of the last three decades and that will chiefly determine future developments; and he is sane in his argumentation and withal so considerate that even those who disagree utterly with his conclusions will concede the great force with which he presents the case for the plaintiff in the case of Fair Trade *vs.* Free Trade. This essay is a study in economics and politics and the objective of the author is to demonstrate the part which the state can and must play if England is to hold her own in the world struggle for industrial supremacy. Government in Mr. Kirkup's philosophy is one of the potent agencies that a people must utilize and in the present exigency that confronts England, the chief means to the end sought.

Klein, Abbe Felix. *In the Land of the Strenuous Life.* Pp. xix, 387. Price, $2.00. Chicago: A. C. McClurg & Co., 1905.

This is one of the most fascinating accounts of a foreigner's visit to America the editor has seen. From a literary standpoint it is a model of simple, direct narrative. The author, a teacher at the Catholic University of Paris, has himself done the book in English (six French editions have been published). The visit was made in 1903, and included stops chiefly in Washington, Boston, Chicago, St. Louis, Peoria, Philadelphia and New York. He is entertained by his co-religionists and naturally therefore is greatly interested in the development of the Catholic Church about which he gives much interesting information. Everywhere he is impressed by the hopefulness of the people and his criticisms lose their sting by the time he has them written. The account is not to be compared to Bryce's work. It pretends to be nothing except what it is, a journal of a thoughtful man who describes his experiences. In France it has been crowned by the academy and awarded the Montyon prize. It should have a wide circulation here.

La durée légale du travail. *Des modifications à apportu à la loi de* 1900. Rapports de Mm. Fagnot, Millerand et Strohl. Pp. 300. Price, 2.50 fr. Paris: Félix Alcan, 1905.

A very interesting report of the proceedings of the French section of the "Association Internationale pour la Protection légale des Traivailleurs." It is proposed to gradually reduce the legal working day to ten hours, *even for adults.* The arguments presented are well worth reading even if it is impossible to agree with them all.

Lang, Andrew. *The Secret of the Totem.* Pp. x, 215. Price, $3.00. New York: Longmans, Green & Co., 1905.

Reserved for later notice.

Levy, Hermann. *Die Stahlindustrie der Vereinigten Staaten von Amerika.* Pp. viii, 364. Price, 7 m. Berlin: Julius Springer, 1905.

The reader is apt to view with some suspicion a book entitled "The Steel Industry of the United States." So many works of a similar title have been issued which either treat of the trust question with its financial bearings or lead one through an account, more or less detailed, on the purely technical developments of the iron and steel industries. Dr. Levy takes a somewhat different view-point, and gives an excellent exposition on the commercial phases of the situation. In the opening chapters he gives a good, clear-cut description of the changes that took place in the location of the iron and steel plants and the causes of these developments. At the same time he shows the other influences which have operated on the steel industry to make the production of the material cheaper. The influences which brought about the trust, and their effect upon price and production, are carefully examined. In the concluding chapters of the work we find considered the American Export problem with its ever allied questions, Tariffs and Trusts. In no part of the treatise does the author fail to lose sight of the distinctly commercial side of the situation, and the whole problem is handled in a most thoroughly scholarly manner.

Loane, M. *The Queen's Poor.* Pp. viii, 312. Price, $2.00. New York: Longmans, Green & Co: London: Edward Arnold, 1905.

A readable though rambling account of the life of the poor with illustrations drawn from a long career as a visiting nurse. It abounds in humorous and pathetic incidents.

McLaughlin, A. C. *The Confederation and the Constitution.* (American Nation Series, edited by A. B. Hart, Vol. X.) Pp. xix, 348. Price, $2.00. New York: Harper & Bros., 1905.

See "Book Reviews."

Meyer, H. R. *Government Regulation of Railway Rates.* Pp. xxv, 486. Price, $1.50. New York: The Macmillan Company, 1905.

Reserved for later notice.

Minnich, Michael Reed. *A Memoir of the First Treasurer of the United States.* Pp. 87. Philadelphia: Published by the author, 18 South Tenth street, 1905.

The author has given in brief compass a history of the Hillegas family in America and a sketch of Michael Hillegas, the treasurer from 1775-1789, who deserves, it is stated, more attention than has been given him. Evidences of his activity are given in excerpts from the Votes of the Assembly of the Province of Pennsylvania and Journals of Congress.

Monnier, Auguste. *Les Accidents du Travail dans L'Agriculture et la Législation Anglaise.* Pp. 204. Paris: Larose & Forcel, 1905.

In view of recent attention paid to accidents in agriculture in France, the

author has thought it worth while to review English history and the resulting legislation upon the subject. The workmen's compensation acts and employer's liability acts are quoted quite fully.

Monroe, P. *A Text-Book in the History of Education.* Pp. xxiii, 772. New York: The Macmillan Company, 1905.
Reserved for later notice.

Moore, J. B. *American Diplomacy.* Pp. xii, 257. Price, $2.00. New York: Harper Bros., 1905.
See "Book Reviews."

Noyes, W. C. *American Railroad Rates.* Pp. viii, 277. Price, $1.50. Boston: Little, Brown & Co., 1905.
Reserved for later notice.

Pope, Jesse Eliphalet. *The Clothing Industry in New York.* Pp. xx, 339. Price, $1.25. Columbia, Mo.: University of Missouri, 1905.

This book is Vol. I of the Social Science Series of the University of Missouri, at which the author is professor of economics and finance. The study was made at first hand in New York City and is restricted to men's and children's outside wearing apparel and to women's cloaks.

The history of the clothing industry is traced, showing how the change was gradually made from custom to ready-made work, the development of the sweating and factory systems. The questions of wages, hours of employment, systems of production and of payment are described at length. Then the author turns to the conditions of employment at home, sanitation, income and expenditures, passing to regulation by law, trade unions, etc.

The work has been well done and the result is not merely a good history of a special trade, but it teems with social facts of great value. The minimum income of heads of families is put at $300—the maximum of skilled men at $1,000—the *average* weekly wages being $16 to $18 for the men. Credit is given the Jews for the development of the trade which the author believes will remain in New York and in their hands.

The volume will repay careful study.

Rae, John. *The Sociological Theory of Capital.* Edited by Charles W. Mixter. Pp. lii, 485. New York: The Macmillan Company, 1905.
Reserved for later notice.

Reeves, Jesse S. *The Napoleonic Exiles in America.* Pp. 134. Baltimore: Johns Hopkins University Studies, Nos. 9-10, 1905.

Reid, G. A. *The Principles of Heredity, with Some Applications.* Pp. xiii, 359. Price, $3.50. New York: E. P. Dutton & Co., 1905.
See "Book Reviews."

Ries, H. *Economic Geology of the United States.* Pp. xxi, 435 . Price, $2.60. New York; The Macmillan Company, 1905.

The writer of this note recently wished to know something about coal, in fact he wished to be thoroughly informed about it. He found the information scattered and some of it hard to get or even unobtainable. A few days later Dr. Ries, "Economic Geology of the United States" came to hand, and in

thirty-two pages treated nearly every phase of the coal question that one can expect in a book that was professedly prepared for college Freshmen.

The book covers the whole field of earth resources of the United States, with considerable attention to regional distribution. In this respect it is unfortunate that a great number of the locations go into no greater detail than the naming of the state. The book is necessarily brief in all its work and very brief in much of it, but it is nevertheless one that will prove itself useful to most people who have frequent occasion to acquaint themselves with the resources of the United States.

Salz, Arthur. *Beitrage zur Geschichte und Kritik der Lohnfondstheorie.* Pp. 200. Berlin: J. G. Cotta'sche—Nachfolger, 1905.

The author traces the history of the theory from its appearance in Adam Smith, showing the attitude of economists towards it to the present time. The study gives a good and readable account of a once important theory.

Seligman, E. R. A. *Principles of Economics.* Pp. xlvi, 613. Price, $2.25. New York: Longmans, Green & Co., 1905.

See "Book Reviews."

Small, A. W. *General Sociology.* Pp. xiv, 739. Price, $4.00. Chicago: University of Chicago Press, 1905.

Reserved for later notice.

Statistisches Jahrbuch du Stadt Berlin. For the year 1904. Edited by Professor E. Hirschberg. Pp. 421.

Students of social and vital statistics will welcome this carefully prepared and comprehensive report from Berlin which is infinitely superior to anything published in America.

Thwaites, R. G. *France in America.* (American Nation Series, edited by A. B. Hart, Vol. VII.) Pp. xxii, 320. Price, $2.00. New York: Harper & Bros., 1905.

Reserved for later notice.

Van Tyne, C. H. *The American Revolution.* (American Nation Series, edited by A. B. Hart, Vol. IX.) Pp. xx, 369. Price, $2.00. New York: Harper & Bros., 1905.

Reserved for later notice.

Warner, G. H. *The Jewish Spectre.* Pp. vi, 377. Price, $1.50. New York: Doubleday, Page & Co., 1905.

A remarkably brilliant book which will have decided influence upon all open-minded readers. In literary skill the author stands comparison with his better known brother, Charles Dudley Warner.

At first the title is misleading, and it is only slowly that the reader discovers that it is the semitic influence in religion which is attacked. Mr. Warner believes that the real importance of the Jew, whether in ancient history, modern life, or in the future has been greatly exaggerated. To prove this he writes a history of the Jews, treating the Bible from a markedly radical standpoint, but one to which intelligent students are steadily coming. Our Bible cult, the author thinks, has a decidedly bad side in that it checks

inquiry and prevents our reasoning. "Theology is steeped in its own despair and only survives through the ecclesiastic."

Great national life the Jew never had, never will have, for the conception is his ignus fatuus. Nor did he have nor has he purity of race, for intermarriage is constant.

There is no need on his part or on ours for constant regret of the past. We should "realize that those impermanent things we call institutions are not what humanity rests upon, but the reverse." "The mind will be left free to face the questions of personal duty, and of intellectual pleasure and happiness in this enchanting—but often enchanted world." Even religious faiths must change.

The theologian will not relish the argument, but its power neither he nor the layman will fail to perceive.

REVIEWS.

Atkinson, Fred W. *The Philippine Islands.* Pp. v, 426. Price, $3.00. Boston: Ginn & Co., 1905.

The Philippine problem is now old enough to be taken seriously even by those gentlemen who are favored to go there as representatives of the United States government. The era of the lightning civilizers seems to be over. The journalist and the politician no longer need to defend the administration by telling us with fine rhetoric that civilization will be put upon the Filipino like ready-made clothes, and that in a short time a new republic will be born in the East as a result of our schoolmastership.

The last pronouncement, and one to which much respect is due, is from the first American general superintendent of education in the Philippine Islands, Mr. Fred W. Atkinson, who, upon his return to this country, finds that, despite the great flood of literature that has arisen concerning the Philippines, there is a dearth of accurate whole truth information on the situation. This is partly due to the fact that it has been a party issue, and partly to the fact that the archipelago is a little world in itself with a bewildering variety of local conditions. Mr. Atkinson notes with satisfaction the desire of Americans to pass over the question of their acquisition, and center attention on the one open question—government, and the possibility of self-government. He sees that we have a problem. "A work, the very immensity of which is just beginning to be perceived by us has been undertaken without any prospect of immediate, satisfactory completion; but it is our task and we have made an encouraging start."

Some of Mr. Atkinson's reasons for this statement as gleaned from his book are as follows: Democratic principles of government must be considerably modified before they can be applied to a people with the history and characteristics of the Filipinos. Mistakes have already been made and will continue to be made because of the impossibility of a law-maker appreciating the needs of this people without having first hand knowledge gained on the

spot. Concerning the commercial future, he says that while the islands are fertile, "yet he must confess that he is not optimistic in his belief that the Philippines will immediately pay largely in a commercial way." The economic factors present many unsolved problems, and the people have many intellectual and other shortcomings.

The book is well illustrated, and is a beautiful specimen of the book-makers' art. It attempts to cover the whole field, history, geography, commerce, government, religion and the characteristics of the people. The last is probably the most important part of the book, because in Filipino psychology lies the problem, and this is the hardest part of the book to write, and it is a part upon which the author's experience should enable him to make a real contribution.

J. Russell Smith.

University of Pennsylvania.

Blackmar, Frank W. *The Elements of Sociology.* Pp. xii, 454. Price, $1.25. New York: The Macmillan Company, 1905.

The author has designed this book as a text for students beginning the subject of sociology. As it is not intended for graduate students it naturally and wisely omits the difficult terminology which characterizes so many current works on the subject. Professor Blackmar has elaborated an outline which is in some of its features quite distinct from any former method of presentation.

The arrangement of parts in the book is of sufficient importance to warrant the reviewer in indicating the line of development. The work consists of the following principal sub-divisions or "books":

I. Nature and Import of Sociology.
II. Social Evolution.
III. Socialization and Social Control.
IV. Social Ideals.
V. Social Pathology.
VI. Methods of Social Investigation.
VII. History of Sociology.

In brief, the author's plan comprehends a discussion of genetic, pure, and applied sociology in consecutive order, followed by a short survey of the development of sociological thought.

The extensive treatment of social evolution enables the student to familiarize himself with the manner of the development of social forces and institutions, but it is questionable whether he should spend so much time upon this subject if his work in sociology is confined to a single course. The chapter on ethics is very suggestive, but the treatment of religion is less satisfactory, while the discussion of the state is, at least, sufficiently extensive. The author has wisely confined his survey of social origins to a brief outline, but, on the other hand, has not fully brought out the importance of, and the contributions to progress of, the various forms of developing institutions.

Books III and IV, dealing with the material of pure sociology, are to a large extent collaborations from the works of the best thinkers on the subject, to whom due credit is given. Considerable material is condensed into this portion of the book, but it is to be regretted that parts of it have not received greater amplification.

Applied sociology, including social pathology, charities, poverty and crime next find an appropriate and well-deserved place. Principles are discussed and positive rules and suggestions for social betterment given. The subsequent chapters on the Methods of Social Investigation are also very helpful and the final book covers the principal points in the development of social philosophy.

In some minor particulars the author has been less pains-taking. The statement that "Sociology treats of the forces which tend to organize and perpetuate society," neglects to include the disintegrating forces which are no less subject to treatment by the science. The expressions, "survival of the best" and "a completed society," are both liable to misinterpretation. The subject of population, certainly an important one in sociology, has received but scant attention, yet in a work formulated according to the plans developed by the author, a more extended discussion could be well afforded.

On the whole, the author has furnished us with a very serviceable text. It is a logical development of the principles of the science and the different branches have been brought into proper correlation. Many apt illustrations further commend the book. Its style is sufficiently simple for easy comprehension and the student will find it a working manual of great value.

George B. Mangold.

University of Pennsylvania.

Caryera y Justiz, F. Introduccion a la Historia de las Instituciones Locales de Cuba. Two volumes. Vol. I, pp. xxxi, 301; Vol. II, pp. v, 510. Havana, 1905.

Since our acquisition of the Philippines and of Porto Rico the development of Spanish-American institutions has acquired an entirely new interest and importance. In all the larger institutions of learning some attention is now being paid to the political organization of the Spanish-American Republics. Unfortunately there is as yet no treatise in the English language which presents a clear picture of the actual working of Spanish-American institutions. In fact, it is difficult to find any satisfactory Spanish treatises on the subject. It is, therefore, a matter of sincere congratulation that we now have from so high an authority as Dr. Carrera y Justiz an exhaustive presentation of the development of local institutions in Cuba from the period of the earliest settlement until the close of Spanish dominion in 1899.

From Dr. Carrera y Justiz's work it is evident that the Spanish government failed to appreciate the true character of the insurrectionary movement in Cuba. In the attempt to pacify the island, concessions were made to the demand for larger local liberties, but these concessions seemed to have had but little effect on the temper of the people. These two volumes simply confirm the impression that the difficulties were economic rather than political.

The author's description of municipal government during the closing period of Spanish rule also strengthens the impression, which recent years have further demonstrated, that the danger of handing over to the Cubans the management of their own affairs was by no means as great as many of our own statesmen supposed. In fact, the way had been prepared by the important concessions made during the last years of Spanish domination.

Since the beginning of Cuban independence, the author has been laboring year in and year out to infuse new life into the Cuban municipalities. Through the formation of civic associations he has emphasized the obligations of the citizen toward the municipality and through constant agitation has secured improvement to a number of local services. His thorough knowledge of the past and his keen interest in the present enables him to bring the experience of the past into direct relation with the needs of the present. It is to be hoped that these two volumes will be followed by a third on the development of municipal institutions during the period of American occupation and since that time.

L. S. Rowe.

University of Pennsylvania.

Greene, Evarts B. *Provincial America.* (American Nation Series, Vol. VI. Edited by A. B. Hart.) Pp. xxi, 359. Price, $2.00. New York: Harper Bros., 1905.

The volumes of the first series have in general been warmly commended both by the specialist and the lay-reader. In no less degree, it is safe to say, will be the appreciation accorded the five volumes of Group II. They are worthy contributions to the series.

In "Provincial America" (1690-1740), Professor Greene takes up the narrative of the history where Professor Andrews leaves off and in somewhat the same manner continues the study of the colonies for the period of the next half century in their threefold development along political, economic and social lines and in their relation as an outlying portion to the English nation.

Political institutions, as might be expected from the author of that scholarly monograph, the "Provincial Governor," takes precedence in the volume, receiving nearly one-half of its space. Chapter I includes a summary of imperial conditions in 1689 and Chapters II, III, IV, V, XI, XII and XIII treat fully for the period covered of the genesis of the governmental systems of the colonies and Great Britain, the interaction of provincial and imperial interests, and the tendencies to an increased imperial control.

The study of the religious conditions of the time is very much restricted, such attention as the subject receives being given to a great extent to those movements affecting the political situation. Chapter VI is devoted to a discussion of the relaxation of the old Puritan system and the unsuccessful attempt to organize an effective Angelican jurisdiction in America. Whitefield's "Great Awakening," it is true, is briefly touched upon, but of many other religious forces of the deepest significance in provincial life there is scanty reference, if mentioned at all.

A brief survey (Chapter VII) of the French and English interests in America in 1689, precedes a well restrained account (Chapters VIII, IX and X, nearly one-sixth of the book) of the early military struggles (1689-1713) of the two powers for the mastery of the continent.

The economic and social development of the colonies (1690-1740), constituting about one-fourth of the main text, is interestingly and suggestively set forth. Charpter I, drawn largely from the two excellent closing chapters in Professor Andrews' volume, is a good summary of these conditions in 1689, including such topics as extent of settlement, population, social and religious elements, and economic occupations and interests.

In Chapter XIV, "Immigration and Expansion" (1690-1740), making skilful use of the somewhat meagre monographic material of Dexter, Proper and others, the author writes upon the rapid natural increase of population, its reinforcement by a large immigration, mostly of non-English stock to the Middle States and the South, and the consequent extension of the settled area, backward to the mountains and southward to the frontier of the newly founded colony of Georgia (Chapter XV).

Chapters XVI and XVII on "Provincial Industry" and "Provincial Commerce" include such items as the author has been able to glean, in passing, on land and labor systems, products, industries and exports, fur trade, fisheries, finances, intercolonial, West India and oversex trade, navigation acts, privateering, and the like. Meager as the materials are they are well handled and are useful contributions to their subjects. Chapter XVIII, "Provincial Culture," is an interesting treatment of the intellectual and literary life of the people as far as it goes, but much more is desirable.

One feels, indeed, in this volume as well as in others of the series, the inadequacy of treatment of these deeper undercurrents of economic and social change, not only as concerns the assignment of space, but in the lack of a fresh individual investigation. There is not the intimate knowledge of the field evidenced in the chapter on political history.

The book as a whole makes but few investigative contributions. It is based on the "conclusions already familiar to special students in this field." The "almost bewildering mass of local and antiquarian publications" is avoided. There are no citations of manuscripts and no new points of view such as enrich Professor Andrews' work; consequently the volume suffers in comparison. Yet there is some justification for these limitations. It is true that this period is "The Forgotten Half Century" and the subject matter, as the author states in his preface, "has never yet been adequately treated as a whole." In the main, the book is a good piece of work. It is well-written and it conforms to the best standards of historical scholarship.

A few errors are pointed out. In the map of North America for 1689 (p. 6), the frontier lines should not extend so far up the Hudson and Connecticut Valleys. The George Keith schism as one of the causes of Penn's loss of Pennsylvania, 1692-1694, is not mentioned (p. 23). A New England bias is observable in the treatment of the Salem Witchcraft (pp. 27-29), culture in the middle colonies, and other topics. To the Jesuit missionaries should be added the *coureurs de bois* and licensed fur traders as agents in

attaching the Indians to the French (p. 110). There is support for a more favorable view of Governor Keith's character than that given by Franklin (p. 216).

It should be made clear that Ireland sent a great many more immigrants to America than Scotland (p. 229), and that Pennsylvania received the great mass of the Scotch-Irish and German immigrants and was the hive for the dissemination of these stocks to the back parts of the southern colonies. The significance of the early settlement of the Great Valley of the Appalachians, its relation to the tidewater region, and its importance as a highway for the southward movement of population is not brought out.

ALBERT COOK MYERS.

Kennett Square, Pa.

Heilprin, Angelo and Louis (Editors.) *Lippincott's New Gazetteer. A Complete pronouncing Gazetteer or Geographical Dictionary of the World.* Pp. 2053. Price, sheep, $10.50 net; half Russia, $12.50 net. Philadelphia and London: J. B. Lippincott Company, 1906.

The new edition of "Lippincott's Gazetteer or Geographical Dictionary of the World" is a work of great value and contains an up-to-date, reliable and well-selected summary of the most important geographical information. The publishers were fortunate in having the services of Professor Angelo Heilprin and his brother Louis, who have devoted four years to rewriting the last preceding edition of the Gazetteer.

The volume has indeed been largely rewritten. Even a hasty comparison of the new edition with the one that preceded it will show that this claim on the part of the editors is well within the facts. The present edition is said to have 100,000 entries and the editors state that 27,000 new names have been added in this edition. Of the new entries between 17,000 and 18,000 refer to places within the United States.

This new edition of "Lippincott's Gazetteer" contains two features which merit special notice. The first of these two features is that this is the first Gazetteer containing a comprehensive and satisfactory account of the Philippine Islands. The Census of the Philippine Islands published by the United States has made it possible for the editors to incorporate in this volume an adequate account of the Philippine Islands as a whole, and of the important islands and cities included within the archipelago.

Another feature of special merit in this new edition of the Gazetteer is the presentation of the results of the explorations of the last ten years. As the editors say in the preface of the volume: "The extraordinary activity that has marked this field of geographical inquiry during the past few years has done much to reconstruct the map of the globe, and the harvest of new facts now makes possible for the first time a nearly complete picture of our planet." Professor Angelo Heilprin's well known interest in exploration was a guarantee that the Gazetteer would contain an adequate and accurate summary of the results of exploration. Fortunately the volume also gives careful attention to the progress and results of colonization, and emphasizes the

influence which man has exerted upon the conditions of life in different parts of the earth.

In discussing a country or a state the usual form of presentation has been adopted; and the account ordinarily begins with the statement of the size, location and population of the country, a description of the "face of the country," then a statement of its resources and an account of its manufactures and agriculture. Religion, education, government and history are also included in the accounts of the more important countries.

The editors seem to have met successfully the difficult problem of proportion. The State of New York, for instance, is given four columns, Ohio three columns, Illinois three columns, United States twenty-one columns, Europe six columns and England four and one-half columns. New York City has five and one-half columns, Philadelphia three columns, and Chicago two columns. As the volume is written primarily for the American public, relatively more space is given to the American countries and cities than to European and other foreign sections and cities.

The publishers are to be congratulated upon the excellent typography and press-work, and they deserve the thanks of every one who may handle the book for having used light and strong paper. The volume of nearly twenty-one hundred pages can readily be handled with one hand. The weight of the volume, fortunately, does not consist of fuller's earth.

EMORY R. JOHNSON.

University of Pennsylvania.

Hill, David J. *A History of European Diplomacy.* Vol. I, *The Struggle for Universal Empire.* Pp. xxiii, 481. Price, $5.00. New York: Longmans, Green & Co., 1905.

In the preface to the first volume of his notable undertaking Mr. Hill states that "A history of diplomacy properly includes not only an account of the progress of international intercourse, but an exposition of the motives by which it has been inspired and the results which it has accomplished. . . . The subject must include also a consideration of the genesis of the entire international system and of its progress toward the successive stages of its development." He also notes that "in a pre-eminent degree this form of history discloses the evolution of progressive ideals . . ."

This ideal purpose of presenting a clear and connected view of the development of the great principles of European diplomacy, is in itself attractive and, if fully realized, would have made the author's work a distinct contribution to historical knowledge. Unfortunately the present volume at least, falls far short of that ideal. Under the title of "The Struggle for Universal Empire," an excellent brief general history of the period from the time of the Roman Empire to the close of the fourteenth century is offered, but the promise of the preface is not fulfilled and the reader will search in vain for that careful discussion of changing diplomatic forms that he has been led to expect. Thus in the first fifty pages, devoted to the Roman world and the barbarian invasions, but seven pages are given to the topics which should have been treated at length,—the diplomatic relations of the period and the

usages of the barbarian kings. The remainder of this section consists of a *resumé* wholly unnecessary if Mr. Hill had taken for granted, as he should, the reader's general knowledge of political conditions and events. Again, in describing the revival of the empire in the west, forty pages of purely general narrative history are followed by two pages of brief, acute analysis of the "invisible empire" as a force perpetuating the moral unity of the old empire, and this analysis is introduced with the statement that "the full significance of the great movements which have been described is in danger of being lost in the multiplicity of details." In truth their significance *is* lost by this over emphasis on detail. In one chapter alone in this volume is the treatment properly proportioned,—in the third section of Chapter VII in which, under the title, "The Organization of Diplomacy in Italy," are stated the local conditions that made diplomatic intercourse between the states "take the place that the empire had left vacant." In this chapter narrative history is used only so far as is necessary to prove and illustrate the great principles underlying the birth of a new diplomacy in Italy.

The misfortune of the volume is, in short, that it lacks a true perspective. Purely narrative history, of no essential value to the work in itself, when given in such extreme detail beclouds the presentation really intended. If, however, the work be considered as merely a new general history, on the international side, it has many excellent features, being very well written, clear, accurate and even entertaining, while the source references at the end of each chapter, the lists of treaties, the maps, and a comprehensive index render it a valuable reference work. It is also possible that the present volume is considered by the author in the nature of an introduction to the real study he proposes to present in succeeding volumes,—for he apparently intends to expand his work to at least six volumes. If this be true the preceding criticism may have to be modified when the entire work is under consideration, but even supposing it to be true, such an introductory volume was not called for by the plan of the work. Certainly this excellent, and in many respects novel plan of work must be treated with greater discrimination in the use and presentation of materials if the work, as a whole, is to attain the rank of a notable production.

E. D. Adams.

Leland Stanford Junior University.

Kelley, Mrs. Florence. *Some Ethical Gains Through Legislation.* Pp. viii, 336. Price, $1.25. New York: The Macmillan Company, 1905.

Mrs. Florence Kelley's book is the latest addition to the Citizen's Library, and contributes to it original material arranged with striking effect.

The substance of it has been drawn from her wide experiences as factory inspector, agent of the Department of Labor, secretary of the Consumers' League, member of the Illinois bar, but chiefly as a resident for thirteen years of social settlements in New York and Chicago. A career thus circumstanced in social work is unique, and when its records have been tabulated the resulting document is one of peculiar interest. It is an account of "the sadly incomplete process of freeing the conscience of the purchasing

public from participation in gross industrial evils," of the new difficulties of producers, and an estimation of the obstacles in the way of a permanent establishment of ethical gains by means of legislation. Certain novel attitudes of mind and hitherto unoccupied points of view which throw new lights upon familiar situations, strike the reader with such especial and stimulating force that there is no interval of flagging interest or retarded movement. The education of the lawyer, an intimate acquantance with factory life, philosophy of the social settlement translated into sane utilitarianism by years of friendships with the wage earner as consumer and producer, and with employer and employee,—this equipment enables Mrs. Kelley to re-state, re-define and re-classify the connection between the social morality of economic classes and the legal enactments that hasten, confirm or retard it. The book frames tentatively and yet with a pervasive eloquence, a new charter of statutory rights in industry, with a method pictorial and not polemic. There are seven chapters and five valuable appendices containing the judicial decisions, the effects of which are discussed in the volume proper. More than one hundred of the two hundred and forty-five pages are filled with the discussion of the right to childhood, and of the child's relation to the state as the courts have defined it and as it is desirable that they should hereafter fix it. She tabulates in admirable form the requirements of child, parent, employer, officials, school and community, which will ultimately bring forth a thoroughly effective uniform child labor law. She demonstrates also how judicial rulings have either made the ethical gains secure, or have impeded the moral advance of a community by failing to recognize the new adjustments between employer and employee on the base lines of the factory, the sweat shop, and the great corporation.

Two chapters deal with the new right to leisure—the establishment of which was first striven for in the nineteenth century—and with its troubled status in the different circles of the law. Mrs. Kelley blazes a new path here. She has given a sense of direction to the social conscience, a clear-set goal, and incisive phrases to describe it. Speaking of young and thoughtless needle-workers who constantly jeopardize the success of movements in their behalf, she says, "Overwork seems to come to these girls as blindly as leisure has befallen the women in the well-to-do households." "Leisure," she adds, "is a human by-product," which remains in the crude unsocial form of unemployed time, of accidental idleness, the bane of large numbers of workers. The chapter alludes briefly to minor means of securing leisure through trades labels, associations and public enlightenment; but her chief recourse would be a statutory enactment taking cognizance of, and giving force to, the genuine ethical advance indicated by an attendant turmoil and confusion of effort. For she holds that much of the strife in society is generated in that gap between a human right, to which claim can be laid only by extra legal means of a militant sort like strikes or terminable trade agreements, and the legal recognition of it.

The chapter on women's right to the ballot is in reality less an argument

than a succinct account of what women have accomplished with their new found leisure and culture, and an outline of the public service now open to them if their foothold is made as safe as a man's. Without any of the fine writing and passionate peroration of the early suffragists, specific fields are pointed out for immediate cultivation. She instances the extension of home activities into the school and of woman's widening scope therein as enfranchised teacher and member of education boards. The temperateness of the woman of affairs whose theories are a deduction from twenty years of experience, and not an untried fire of the emotions, leads her to downright practical conclusions that would seem bald if they were not solidly balanced by homely and apt illustrations from her note book.

The final chapters concern the rights of purchasers and the judicial interpretations of them in their most obvious forms of protection against disease conveyed by industries, of protection by trade labels on goods, and of the right to be free from participating indirectly in the employment of children and adults victims of the sweating system. The ethical losses through lack of legislation and retroactive rulings upon these vital concerns are shown by incidents affecting the health, expenditures and civic ideals of both purchaser and producer. The revolt against tenement manufacture of goods should now be made effective by thorough going measures of regulation.

The book ends abruptly, like a formal report, without the final discussion of the ethical trend which the reader expects and is disappointed not to have. Yet Mrs. Kelley has presented a strong case in support of her contention that the mere legal guarantee of liberty in private contract is often a real stultification of that liberty. The inter-relations of the topics and the necessary cross classifications result in a distribution of material which makes it difficult to find given topics. But the general arrangement is thoroughly readable and forceful.

Mrs. Kelley's English is occasionally careless, and some paragraphs have the stamp of ferryboat and trolley car composition, of a haste unsuitable to the discussion of such valuable matter as she crowds into small compass. Her topics are ripe and full: the book may well become a classic on industrial life, but this first edition lacks the final touch of care, the polish of revision to which it is richly entitled.

Charlotte Kimball Patten.

Philadelphia, Pa.

McLaughlin, Andrew Cunningham. *The Confederation and the Constitution*, 1783-1789. (Vol. X of the American Nation, edited by A. B. Hart.) Pp. xix, 348. Price, $2.00. New York: Harper & Bros., 1905.

This is the tenth volume of the most pretentious history of the United States which has yet been undertaken. In the editor's words, "the volume articulates very closely with Van Tyne's 'American Revolution' (Vol. IX), taking as a starting point the defeat of the king's friends in Parliament in the spring of 1782." The narrative closes with the adoption of the constitution by eleven states and is followed by a critical essay on authorities.

The evils which threatened to overwhelm the states in the years imme-

diately following the close of the war with England are set forth in several luminous chapters. It was a pitiable sight, Congress calling on the state governments for money but unable to collect it, seeking to borrow money when unable even to pay the interest on loans already secured, issuing paper money only to have it become a byword, wishing to regulate commerce, though unable to protect it from pirates, threatened with mutiny in its army and with agrarianism and rebellion in certain sections, ignored abroad because unable to enforce its treaties and contemned at home by states which saved themselves the expense of sending delegates, thereby depriving it of a quorum with which to carry on its only business, that of recommendation. It was a severe schooling, but the people learned the lesson well and cured the most of the defects in the new government set up in place of the old.

This was the question for a time, whether they should seek to cure the defects of the old government or set up a new one. Commercial relations between Maryland and Virginia had led to the Annapolis convention. By this time far-seeing statesmen, such as Madison, Bowdoin and Hamilton, realized that a mere commercial arrangement would not suffice, even if all the states had been there to participate. In vain had efforts been made to have a general convention called by Congress. The men at Annapolis now took the bold step of calling such a convention, addressing the states directly, but notifying Congress. The call did not specify that a new government was to replace the old, but delegates who were instructed to find something which would "render the constitution of the federal government adequate to the exigencies of the Union" could easily say that nothing else would. The revolutionary character of the call, and also of the adoption of the constitution is referred to by Professor McLaughlin, but hardly emphasized enough in view of the popular notion that all resolutions must be violent, not to say bloody.

Hamilton was prominent in pointing out the defects of the confederation and in calling the convention, but thereafter his work is a negligible quantity, because his schemes were too nearly impracticable. Madison, though extremely modest and retiring, supplies the master mind and guiding hand of the convention. If Washington was the father of his country, Madison was the father of its constitution.

But even Madison was defeated on some measures dear to his heart. No defect of the confederation was more palpable than the lack of coercive power in Congress. To cure this it was proposed to give the new government the power of coercion. Even Madison and Pinkney went so far as favoring a negative over state laws, though not favoring coercion by arms, but a happier plan was devised, that of making the new government operate on individuals instead of states and making its constitution and laws the supreme law of the land. Had not this device been instituted for the negative on state laws, Professor McLaughlin thinks the constitution would not have lasted a decade.

Most historians have considered that the great compromise was on the question of slavery, but Professor McLaughlin makes it the matter of equal representation in the senate. Even in the lower house proportional repre-

sentation was won only by six to four, Maryland being divided. Madison stood out to the last for proportional representation in the Senate, but was defeated. In vain did he point out that the danger lay, not in combinations of states according to size, as the smaller states feared, but in the climatic and social differences between the North and South. Georgia, the smallest state in numbers, had been voting with the larger states, but now her vote was divided, one of her delegates, Abraham Baldwin, favoring the plan offered by his native state, Connecticut, and proportional representation was lost by five to five. Perhaps the author is right in calling it the great compromise. Those on slavery have passed away, but this one abides and is likely to abide for many years to come. As a result to-day, Nevada, with her 42,335 inhabitants, is equal in the Senate to Georgia with her 2,216,331, to say nothing of New York with her 7,268,894.

Jay's negotiations with Gardoqui for the right to navigate the Mississippi are described at length, but the full significance of his proposal to give up the river in return for certain commercial privileges is hardly brought out. It was the occasion for one of the first signs of sectional cleavage. Better no union, said some in the South, than union without the river. About the same time that Madison secured the adoption of the report of the Annapolis convention in the Virginia burgesses, a resolution was also passed against Jay's proposed treaty. Soon after this Madison returned to Congress and had the satisfaction of seeing Jay's plans abandoned. But for this there probably would have been no union.

David Y. Thomas.

University of Florida.

Moore, John Bassett. *American Diplomacy: Its Spirit and Achievements.* Pp. xii, 286. Price, $2.00. New York: Harper & Bros., 1905.

This volume is a reproduction with some revision and amplification of a series of articles contributed by the author to *Harper's Magazine* during the years 1903 and 1904. There is no higher living authority on American diplomacy than J. B. Moore. The author of a monumental work on international arbitration and author, also, of what will probably prove to be a work of equal scholarship and magnitude, entitled a "Digest of International Law," now in press, he has in addition had practical diplomatic experience as Assistant Secretary of State of the United States under two administrations and as secretary of the American Peace Commission at Paris in 1898. Whatever he writes is both authoritative and interesting, and shows the most intimate knowledge.

The series of essays here brought together under one cover is not intended to be a chronological narrative of the diplomatic history of the United States, but is, to use the author's own language, rather an exposition of the principles by which the international achievements of our government have been guided, in order that the distinctive purposes of American diplomacy may be understood and its meaning and influence appreciated.

There are altogether ten essays in which are traced the beginnings of

American diplomacy from the appointment of the "Secret Committee of Correspondence" by the Continental Congress in November, 1775; the development of the American system of neutrality beginning with Washington's neutrality proclamation in 1793; the history of the long drawn out fisheries controversy with Great Britain which is hardly yet definitely settled; the story of our diplomatic struggles against the commercial restrictions of the old world and the diplomacy by which the territorial area of the United States has been increased from a fringe of Atlantic States to its present imperial extent. In addition to these are several chapters of special value, owing to the fact that they treat in a continuous and intimate manner certain questions usually neglected in the text-books on American diplomacy. One of these, entitled "Freedom of the Seas," contains a development of the policy of the United States with regard to the right of navigating the high seas, including the straits which connect them and also international rivers. The traditional policy of the United States concerning the doctrine of expatriation and the diplomatic controversies relating thereto are discussed in another chapter. On the subject of international arbitration Professor Moore is by virtue of his extended research and long study qualified to speak with the highest authority. Particularly valuable therefore is his discussion of the development of arbitration sentiment in the United States and his summary of the cases to which our government has been a party. Hardly less valuable is the essay on non-intervention and the Monroe Doctrine, the development of which is traced from the beginning down to the conclusion of the treaty with Santo Domingo now pending before the Senate. In a final chapter, now published for the first time, Professor Moore discusses the influences and tendencies that have characterized American diplomacy from the beginning. Nothing could be more erroneous, he says, than the supposition that the United States has only recently become a world power. In reality it has always been a world power in the fullest and highest sense, he asserts, and the success of the President of the United States in recently bringing about the termination of the war in the Far East was probably due more to a sense of the nation's power than to the personal element.

James Wilford Garner.

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Reid, G. Archdall. *The Principles of Heredity.* Pp. xiii, 359. Price, $3.50. New York: E. P. Dutton, 1905.

Although addressed largely to medical men this volume will be found of great value to all students of human progress and social problems. A few, but only a few, chapters will be somewhat difficult reading to one not versed in biology. The author deeply regrets that in the medical schools, in America as well as England, so little direct attention is paid to the factor of heredity. Even in medical literature there is a vast amount of careless writing due often to misuse of terms and ignorance. He appeals, therefore, to medical men to clear up their minds on this important topic. Social workers need this in equal measure.

The work begins therefore with a clear statement of the various theories of heredity and evolution. The reviewer knows of no book in which the significance of these differences is more plainly shown. From time to time there is a brief restatement of the ground covered so no confusion is left in the reader's mind. The author believes and here he is supported by the leading biologists, that *acquired characteristics* are not inherited. This part of his argument deserves most careful study for a large part of our evidence as to what is taking place in society is rendered useless by its confusion of *inborn* and *acquired*.

In Chapter V is given a very good statement of the "recapitulation" theory, that a child briefly summarizes in his own development from the single cell to manhood, the entire organic evolution. The three succeeding chapters deal with the significance of bi-parental reproduction, regression and the cause of spontaneous variations.

With Chapter VIII a new line of argument is taken up. The author believes that the zymotic diseases (those caused by parasitic organisms, tuberculosis, malaria, small-pox) offer the best field for showing the action of heredity and human development. Here he repeats in part the argument given in his earlier works on "The Present Evolution of Man" and "Alcoholism." The account is stimulating and suggestive and has great value irrespective of the question whether the author really solves all the problems raised. He believes that men are slowly evolving against these diseases because they continually eliminate the unfit, *i. e.*, those who are not immune or who cannot conquer the enemy. The longer the experience the race has had against a given disease the greater the immunity. According to his belief there is really no anti-toxin, but that so-called anti-toxin introduces a modified form of the disease into the system, gradually enabling it to stand the virulent form. Thus tuberculosis, fevers, even alcohol are gradually killing off the weak. All attempts at prohibition are therefore doomed to failure. What we should strive for is the elimination of the drunkard not of drink.

With Chapter XVI is begun a psychological study with the discussion of voluntary and reflex actions, the instincts, the mind and mental evolution. Only in Chapter XIX on Automatic Action does the reader feel at first that the author has forgotten his basis of the non-inheritance of acquired characteristics. More careful study avoids the confusion, but the wording is needlessly obscure.

The last four chapters contain much more or less novel. The author in discussing racial mental differences questions the existence of the so-called French or German types of mind and challenges such conclusions as the resorts of baffled thinkers. Racial characters are seldom inborn. The section on Methods of Religious Teaching and on Scholastic Teaching are rather sharply critical of many existing methods and call for careful reading.

In conclusion, "Practical Problems," the questions of physical deterioration, influence of cities, public health, childbirth, insanity are taken up and the importance of grappling with them in accord with the backings of heredity shown.

The reviewer has seldom seen a more carefully worked out thesis. It is both interesting and instructive, though as regards many conclusions the evidence is not yet at hand. In these days when environmental influences are so emphasized, it is well to have our attention focussed occasionally upon the part played by heredity. This the author has successfully done. It is to be hoped that medical men will heed the plea for better co-ordination of their studies to the end that we may all know better just what results, and how, in this great stream of organic development. There is no reason to doubt the accuracy of the author's belief that man is evolving to-day as much as ever. It is extremely important that we learn how to control such evolution.

I can only hope that all who chance to read these lines will get the book and study it. There will be no regret.

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Seligman, Edwin R. A. *Principles of Economics.* (American Citizen Series.) Pp. xlvi, 613. Price, $2.25. New York: Longmans, Green & Co., 1905.

Much interest will naturally centre in this recent addition to the rapidly increasing list of books presenting the general principles of economics by reason of the fact that its author easily takes a high rank among the most erudite exponents of the science. A novice may well have some hesitancy about attempting to pass a critical judgment upon the mature product of such scholarship; and, indeed, the present reviewer will not assume the task of estimating the worth of this book in all of its parts, nor will he do more than mention a few of its obvious merits and then consider in a cursory manner some phases of its theoretical expositions.

Before taking up his subject proper, the author devotes thirty pages to classified lists of general references and suggestions for the aid of students and teachers. This is by all odds the most complete assortment of economic literature yet given in any text-book. It may be added in this connection that each chapter throughout the work is preceded by a large list of references pertinent to the topics under discussion. In many cases these references serve a twofold purpose: they enable the author to make acknowledgment of indebtedness for suggestions and they also serve the more important purpose of directing the reader to sources of additional light upon the subject-matter of the chapter.

Limitation of space forbids a full statement of the arrangement of the book. Nearly one hundred and fifty pages are given over to an interesting description of the elements of economic life, such as its foundations, its conditions as expressed in private property, competition and freedom, and its development together with the development of its interpretation in thought. The author gives the subject of value a primacy not usually accorded it in texts, and he is particularly careful to emphasize the social aspects of the subject. So far as the reviewer's knowledge goes, this book is one of the first two in which the capitalization idea is applied to values in general—an idea destined to bear much fruit in the years to come. An important merit

of the work arises from the fact that it was written with particular reference to American conditions. The illustrative matter taken from American sources and presented in the form of tables, maps and charts would alone suffice to make the volume a valuable supplement to the literature used in connection with any general course in economics.

A few theoretical details will now be brought under review. On page 12 the author explains "the seeming opposition between wealth and value" (see also page 185). His explanation seems to imply that wealth is a quantum that may become more or less, whereas value expresses the relation of one quantum to another and is incapable of increase or diminution because when one quantum becomes greater in its relation to another quantum the second quantum becomes less by as much in its relation to the first. To some minds such a value concept will appear to fall short of expressing its essence. To say that x is worth 2y implies that in the estimation of an individual (or of the community) x and y possess a potency in common but in unequal degrees —each is capable of improving the well-being of man. The fundamental fact in the case is not that one can condition an improvement *twice as great* as the other, but rather that each alone can effect a positive and definite improvement in human welfare. Since the improvement due to the presence of y is only one-half that dependent upon x, x is said to be worth 2y—which is really the formula for price. If the improvement dependent upon a thing (*i. e.,* one unit of the supply) be called the effective utility of the thing, which is the same as its marginal utility, then it takes only one step to formulate a concept of value covering its essence everywhere and all the time—whether for a Crusoe or for a society with well developed markets. Value is effective utility. Because the effective utility of one thing happens to be expressed in terms of the effective utility of another thing, an increase in the effective utility of the first thing does not imply a decrease in the effective utility of the second thing. The second may have decreased, but very likely it has not—so that there is a total increase of effective utility, which means an increase of total value and hence of wealth.

The above line of thought leads to a conclusion directly opposed to that of the author when he says: "There may be a general rise or fall of prices, . . . there cannot be a general rise or fall of values, . . ."(page 185). Indeed, there may be a general rise or fall of values, but there cannot be a *general* rise or fall of prices, because of the reciprocal nature of price, since the term means the amount of one commodity that is given in exchange for another. For practical purposes, however, there may be a rise or fall of prices based on variations in the value of particular commodities while assuming that there has been no change in the value of the commodity in terms of which the value of the other commodities is expressed.

Again, in distinguishing between marginal utility and total utility the author attaches an unusual meaning to the former. He says: "The marginal utility of the stock" of apples "is always equal to the marginal utility of the final unit multiplied by the number of units" (page 176). Most writers restrict the term marginal utility to the utility of the "final" unit. Unfortunately there is employed in common usage no term to express the result of

multiplying the marginal utility by the number of units except the term *value*, nor is this term always used to express this product, because many writers (including of course the author) regard value as something other than utility. However, it is perhaps not best to make the term marginal utility do double duty as Professor Seligman has done, and if it is desired to use some other term than value to distinguish that part of utility which has efficiency in conditioning human welfare from the total utility derived from a stock, perhaps no better term could be employed than that of "effective utility." The effective utility of a stock of apples is the utility of the marginal apple multiplied by the number of apples. This effective utility of the stock is also the value of the stock of apples.

What is the author's conception of normal price? That price which results from an equilibrium of normal demand and normal supply (pages 245, 246, 247). This is good. But when are demand and supply in normal equilibrium? Certainly not when units of the supply are produced at varying costs as the author implies (pages 246, 247). This condition would give the market price. Demand and supply can never be in equilibrium in any enlightening sense of the phraseology unless all units of the supply are produced at the same costs. If there is any advantage anywhere it tends to disappear under competition and the equilibrium would exist only after the advantage had disappeared. When all of the productive factors are so placed that there is no inducement for any one of them to locate itself elsewhere in the industrial system then there is equilibrium and the resulting prices are normal prices.

This review has already transgressed beyond the space limits assigned to it, so that the author's treatment of distribution can only be mentioned. The final productivity principle is given an important function in apportioning the shares. In his view ordinary profits arise from a differential advantage in production and tend to disappear under competition, but abide because new advantages appear (page 353). Wages tend to conform to the contribution which labor makes to the product, though the standard of life is of importance in indirectly affecting the size of the product (page 419). On the subject of capital and interest, including rent, a Clark-Böhm-Bawerk-Carver-Fetter view of the matter is presented together with some additional reflections.

The point just made suggests the thought that the author, like Adam Smith, possesses a cosmopolitan mind which enables him in many cases to present more than one view and explanation of the same matter. This cosmopolitan spirit which runs through the work will commend it to a larger circle of readers. Finally, the book deserves and will no doubt receive a wide circulation as a supplementary college text.

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